# TOWN OF WALDEN PLAN



#### **ACKNOWLEDGMENTS**

#### **TOWN BOARD**

Lee Davis, Mayor Lizzy Schmidt, Vice Mayor Sarah McKenzie, Alderwoman

#### **TOWN OFFICIALS**

Fern Lockhart, Town Recorder Sam Elliott, Town Attorney Herbert Thornberry, Walden Judge

#### LAND USE PLAN COMMITTEE

Steven Bush Angela Cassidy Andrew Haussler Sarah McKenzie, Alderwoman Dawson Wheeler

#### CHATTANOOGA HAMILTON COUNTY REGIONAL PLANNING AGENCY

Karen Hundt Eric Matravers Sarah Robbins

#### WALDEN'S RIDGE EMERGENCY SERVICES

Bill Thorton

#### **BACHMAN COMMUNITY CENTER**

Katy Murphy, Director

anc

#### The Citizens of Walden

Prepared for the Town of Walden by:

**COMMON GROUND URBAN DESIGN + PLANNING** 

with

KCI TECHNOLOGIES, INC. ZANETTA ILLUSTRATION



## TOWN OF WALDEN PLAN

Lee Davis Mayor

Alderman/Vice-Mayor

1836 Taft Highway P.O. Box 335 Signal Mountain, TN 37377 Phone: 423-886-4362 waldentownhall@epbfi.net

Fax: 423-886-7953

Sarah McKenzie Alderwoman

Sam Elliott Town Attorney October 4, 2021

Fern Lockhar Town Recorder

To: Walden Residents & Friends From The Land Use Committee & Mayor Lee Davis

Re: Walden Town Plan

Land use plans are typically updated by municipalities with a cadence of about every five years. Walden had not updated its plan in over two decades. In some states surrounding Tennessee, the updates are mandatory. We are very pleased with the consultant team who has developed this new plan for our town.

The new plan recognizes past planning efforts, but many were not implemented, particularly related to Taft Highway improvements and sewer service expansion that have been tied up due to funding and system constraints. Those remain opportunities without easy solutions.

The plan is intended to guide both Walden officials and developers through the vision and design elements of the plans, plus updated zoning and ordinances to help steer alignment. While the plan has few suggested changes to the traditional residential neighborhoods of Walden, there are several elements in the plan that we are excited about including:

- A "sense of place" for the town of Walden through design changes and landscape elements along Taft Highway in the town center area
- Improved traffic flow via traffic circles at the Anderson Pike / Taft Highway intersection leading up from the W Road and at the challenging intersection of Fairmount Avenue and Taft Highway
- In the largely open space on the west side of Taft Highway, the consultant has envisioned a walkable / bikeable mixed use town center and neighborhood that allows for small scale shops and restaurants, plus a range of housing that can help serve the needs of citizens.
- The new town center and neighborhood follows the contours of the land and avoids development of extreme slopes
- Improved pedestrian access to Walden's recreational assets including the Pumpkin Patch and McCoy Farm & Garden
- Way finding (signage) to assist visitors to locate the key cultural destinations within Walden, along with efforts to address the parking issues at trailheads

Land Use Committee Members:

Steven Bush, Angela Cassidy, Andrew Hausler, Sarah McKenzie, and Dawson Wheeler

Lee Davis, Mayor



## TABLE OF CONTENTS

1	INTRODUCTION & BACKGROUND	1	
2	WALDEN'S PLACES [ land use and character ]	21	
3	WALDEN'S TREASURES I civic assets I	33	
4	CONNECTING WALDEN SAFELY FOR ALL [mobility]	41	
5	A SUSTAINABLE & RESILIENT WALDEN [ sustainability ]	53	
6	THE HEART OF WALDEN [ a new town center ]	59	
7	IMPLEMENTATION [ implementation matrix ]	85	
A	APPENDIX [ public input record ]	97	

## INTRODUCTION & BACKGROUND

"The long plateau known as Walden's Ridge, near the tip end of the Appalachian Mountain range, has always beckoned travelers to stay a while and enjoy the quiet woods, rippling streams, and majestic, breathtaking views." -Mary Scott Norris and Priscilla N. Shartle in

Images of America, Signal Mountain

he heart of Walden, Tennessee is at a literal and figurative crossroads. It has been 24 years since the completion of its last Land Use Plan—a plan for all of Walden's Ridge that included Signal Mountain and the unincorporated portions of Hamilton County. It has been 23 years since the Walden Town Center Plan was completed, which focused on creating a center for the Town near its literal crossroads of Taft Highway and Anderson Pike, and the W Road. Since that time, the quiet, primarily residential community has continued to hum along. New development has been minimal and mostly confined to residential updates and some new construction. However, development pressure in Walden exists, as evidenced by recent controversial development proposals and over the past couple of decades. Moreover, as existing long-time businesses close and large undeveloped parcels are acquired, there is concern from the community as to what happens next, what it should look like, or whether it is appropriate at all. Combined with concerns such as the environment, the preservation of Walden's character. infrastructure, and even the loss of tax revenue, the question of growth and change becomes a complex one.

The quote from Images of America, Signal Moun*tain* on the opposite page still expresses the draw that Walden continues to have for its citizens today. The natural beauty of Walden's woods, streams, waterfalls and ridges is still

a primary factor of enjoyment for its citizens. This plan, while offering suggestions for areas for potential development recognizes the desire of the citizens to pursue any development first and foremost within the constraints of the natural environment already in place within Walden. To state this position simply, any proposed development must work with the natural environment within its location. While some manipulation is expected it should not be for the sake of development, i.e. the natural environment must remain a primary consideration and developed around and with and not over or destroyed.

For these reasons, the community has embarked on an effort to revisit its long-range planning and endeavor to define a clear path forward for the next twenty years. Walden is at its figurative crossroads. This document is Walden's plan. While the plan is comprehensive and townwide in some respects, the focus of this effort is the Taft Highway corridor from Anderson Pike near James Boulevard to just north of the Pinecrest Baptist Church. This plan is simply a blueprint, however. The plan will not implement itself. Some of the concepts in this plan can be implemented immediately. Others will take additional study and evaluation. All will take time and resources. Once adopted, the Town should use the plan as a basis for decisions by leaders on a variety of growth and community-related issues. Ultimately, plan implementation depends on leadership and community commitment.

## A SNAPSHOT OF WALDEN HISTORICAL OVERVIEW

A brief historical overview of Walden's development is helpful in catching a glimpse of Walden today. With the 1819 Hiwassee Purchase, land north of the Tennessee River was opened to settlers. Originally occupied by the Cherokee and Creek Native American tribes, the area that would eventually become Walden's Ridge, and more specifically Walden, would soon be coveted for its springs and the promise of refuge from a young Chattanooga and its threat of disease. What began as the farms of the Levi and Mabbitt families evolved into an elevated oasis.

Several important figures helped to settle the area. In the 1870s, the Key family, frequent visitors during pandemics, purchased land and constructed two log cabins giving birth to Walden's forerunner, the community of Summertown. David Key was an elected judge, a U.S. Senator, and eventually the Postmaster General. In the early 1910s, another eventual U.S. Senator, Nathan Bachman, purchased a farm south of Summertown. Bachman served in the Senate beginning in 1933 until his sudden death in 1937. The school, a community center today, was named in his honor. The Bachman farm was extensive with an orchard and large garden—the bounty

"The people came not as founders, but as refugees, and the community was called Summertown because it was just that. It grew and flourished and was loved because the spirit of God was amongst its people, between man and God, and between man and man."

-Elizabeth B. Patten in "Lest We Forget" in *The Little Brown Church in the Wildwood*  from which was often shared with people on the mountain. Nathan Bachman's daughter, Martha Bachman McCoy, stayed on the mountain her entire life and, along with her daughter Sally McCoy Garland, arranged for a gift/sale transfer of the farm to the Town of Walden.

From the beginning, Walden was a community of cabins, boarding houses, and farms, but it wasn't easy to access. Travel was provided by horse-drawn carriage in the early days, and the trip took two to four hours depending on whether you were going down or up, respectively. The late 19th century brought the famed "W" Road, which still exists perilously today. Taft Highway eventually replaced Anderson Pike as the main artery through Walden. For more than six decades, unincorporated Summertown and surrounding areas continued to flourish as a guiet, remote, rural mountain community. Seeking to be a distinct municipality from nearby Signal Mountain, the Town of Walden was incorporated in 1975. Families have always been attracted to Walden, and the addition of Signal Mountain High School in 2008 made the area even more attractive. In the 1990s, Walden restricted much of the land within its boundary to two-acre minimum single-family residential lots. This move ensured the Town would remain a relatively low-density community for years to come.



The W Road circa 1895

## POPULATION, HOUSEHOLDS, AND AGE

The population of Walden has been fairly consistent over the past twenty years, hovering around 2,000. At the time of this writing, the Town is still waiting on the results of the 2020 census, but the American Community Survey estimates indicate a slight increase in population since 2010. Similarly, the total number of households is expected only slightly to change in the same period.

#### **Population**



**2010**: 1,898 (Census) **2019**: 1,948 (ACS)

3% increase in population since 2010

#### **Total Households**



**2010**: 737 (Census) **2019**: 744 (ACS)

1% increase in households since 2010

While the number of households and housing units has seen a small increase, the number of family households has declined over the past ten years.

#### **Housing Units**



**2010**: 799 (Census) **2019**: 815 (ACS)

96% of Walden's housing units are single-family.

#### Family Households



**2010**: 586 (Census) **2019**: 550 (ACS)

6% decrease in families since 2010

Meanwhile, the median age of Walden residents is creeping higher, and the number of residents 65 and over is increasing more rapidly.

#### Median Age



2010: 44.6 (Census) 2019: 46.2

4% increase in median age since 2010

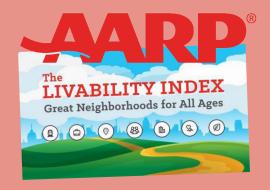
#### Ages 65 and Over

2010: 309 or 16% of the population 2019: 412 or 21% of the population 33% increase residents 65+

## OTHER FACTORS OF INTEREST

## Walk Score®

Walkscore, owned by Redfin, is a walkability index for communities. Using a scale of 0-100, it scores the walkability of a place based on various factors.
Walden has a Walkscore of 0, meaning that it is car-dependent for almost all daily needs.



Using a scale of 0-100, the AARP Livability Index rates the livability of a community based on seven different categories. Walden's Livability Index score is 51 with the following individual category scores.

Housing: 40 Transportation: 39

Environment: 73

Health: 49 Engagement: 67

Opportunity: 56

It should be noted that these indices are not scientific and it is nearly impossible to achieve a perfect score in either. However, they are helpful in comparing what a community might desire and what is actually on the ground.

#### What Are People Seeking Nationwide?

In 2020, the National Association of Realtors conducted its National Community and Transportation Preferences Survey. Two surveys were completed, one pre-pandemic and one post. Here are a few results of note from the post-pandemic survey:

- 76% of respondents say being within walking distance of shops and parks is important
- 85% say sidewalks and places to take walks are important
- For respondents that feel walkability is important, 58% said they would be willing to spend more to live where parks, shops, and restaurants are within walking distance
- Over 50% of respondents preferred communities with a mixture of housing types and walkability

#### What Do Walden Residents Think?

In 2019, 178 people responded to a Land Use Planning survey initiated by the Town. The results showed that an overwhelming majority are satisfied with Walden as a place to live. There was support for maintaining the Town's rural, residential character; however, questions related to Taft Highway and future development were a bit more mixed. Some of the more interesting highlights from the survey include:

- 74% and 53% of respondents identified walking trails and sidewalks as mobility needs, respectively
- 46% of respondents—more than twice that of the other answers—felt being open to reasonable commercial growth is a good way to offset the loss of the Hall Income Tax revenue that was ended
- 52% of respondents indicated a desire to allow new residential subdivisions and condominiums/townhouses

As for the future development along Taft Hwy:

- 57% preferred establishments with outdoor dining
- 45% preferred walkable village-style development
- Only 24% of respondents preferred suburban-style development

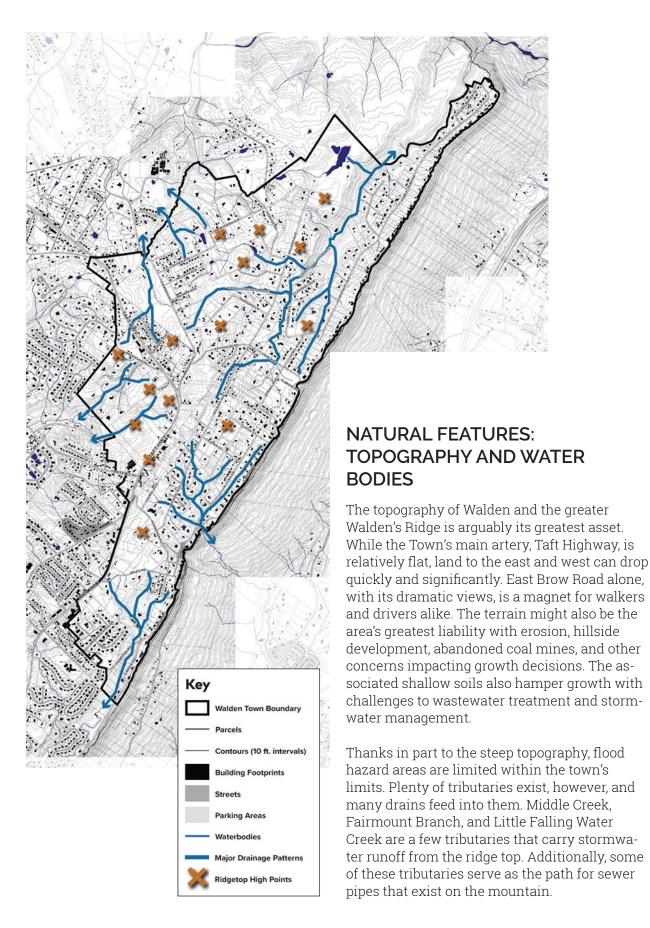
#### What Does All of This Mean for Walden?

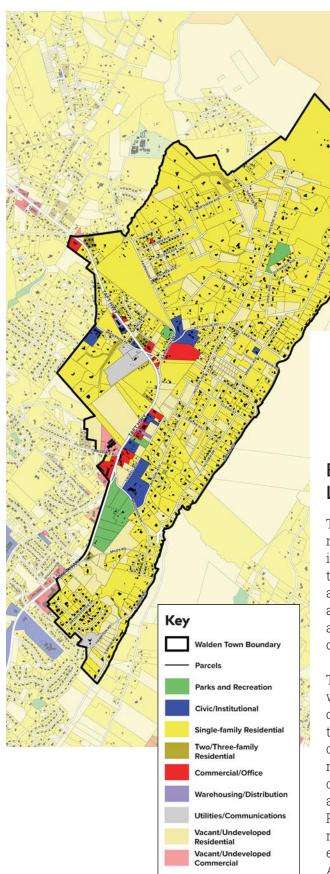
Walden's local trends indicate marginal growth and an aging population, which is not in and of itself a bad thing. It does, however, signal the need to consider the effect of such trends. Aging in place is the notion that one can grow older within the community they live and have invested much of their lives. Coupled with the national trends toward housing choice, walkability, and the desire to live within close proximity to daily needs, one might question how Walden is responding to these trends. Walden intends this Land Use Plan to help remedy the scarcity of housing options within the community

## EXISTING CONDITIONS ASSESSMENT

Before developing the Town of Walden Plan, the consultant team conducted a study of existing conditions to understand opportunities and constraints to future growth better. The following pages highlight these findings.







## BUILT FEATURES: LAND USE

There is no question that Walden is predominantly a residential community. Nearly 75% of its land area is devoted to single-family residential land use on lots ranging from 1 acre to 100 acres and a mean acreage of 2.24 acres. There are no multi-family uses in Walden, and Two-and Three-family residential make up about 1% of the Town's land area.

The balance of the Town's land uses are mixed with civic and institutional, commercial, and communications (antenna farm) uses, having the largest share of the remaining land area. The commercial uses are concentrated along the main artery, Taft Highway. Two small clusters of commercial uses exist north of Spencer Avenue and between Anderson Pike and Fairmount Pike at the bend in Taft Highway. An established non-residential pattern exists primarily on the east side of Taft Highway south of the bend to Anderson Pike/W Road.

#### BUILT FEATURES: DEVELOPMENT CHARACTER

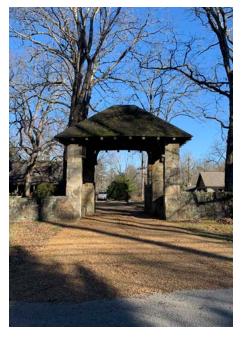
As primarily a residential community, the character of most of Walden is that of large lots, houses set back from the street and natural landscapes. The older residential and some of the new exhibit qualities similar to other historic mountain communities. Stone is used in foundations, walls, and often facades. Wood siding and shingles complement the masonry. House styles vary, but common details such as simple, deep overhangs, jerkinhead roofs, exposed rafters are prevalent. The houses and large lots are compliments to the narrow roads that serve them. These picturesque roads are narrow with swale drainage, and many serve as de facto sidewalks, often creating conflicts with automobiles.

What Walden lacks is an authentic, cohesive. walkable center. What most consider as the center of Walden is located along the east side of Taft Highway south of Fairmount Pike and north of Anderson Pike (near the W Road). Town Hall and the Pumpkin Patch are the centerpieces of this area, but the rest is a mixture of lowrise commercial buildings, converted or vacant residential, and the relatively new Fire Hall. Unlike the historic residential areas, there is not a distinctive character or architecture. There are no sidewalks, and the design and width of Taft Highway make the area feel very uncomfortable for anyone not in a car or inside a park or building. Additionally, some of the buildings are vacant, which lends to a sense of desolation.





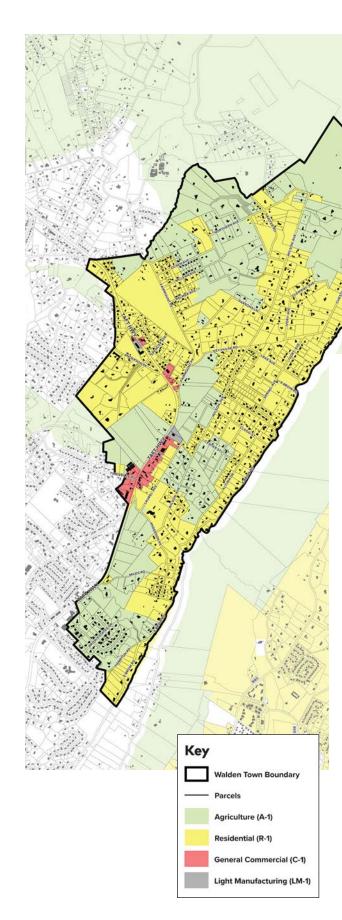








Many residential and civic sites have a picturesque, mountain town feel (above) while sites along Taft Highway lack cohesion and are dominated by asphalt (left).



## REGULATIONS AND POLICY: ZONING

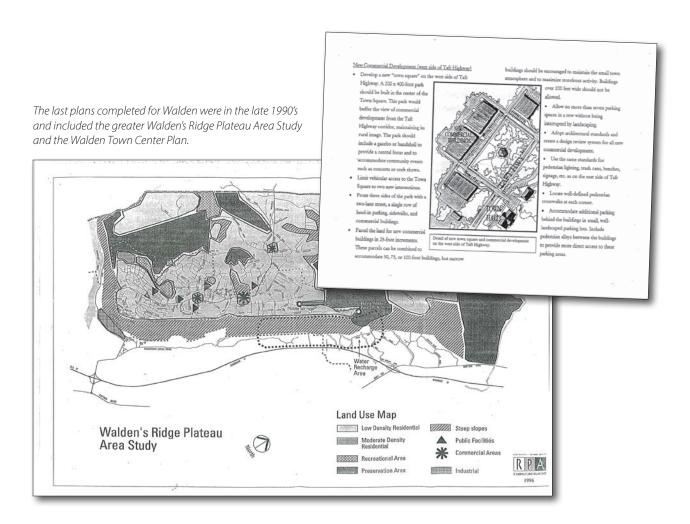
Walden's zoning (the regulations governing development) largely follows its land use pattern. The majority of the Town is zoned for Agriculture (A-1), which requires a minimum lot size of 20 acres, and Residential (R-1) requires a minimum lot size of 2 acres. Both zoning districts allow for a single-family detached residential pattern. A 2019 survey indicated a preference to maintain this low-density single-family pattern of development with the possible exception of a confined area in the heart of the community along Taft Highway.

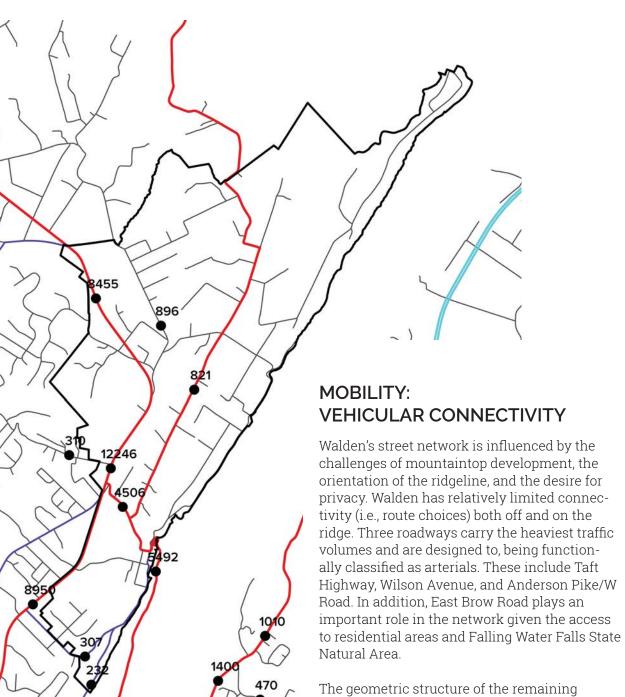
The Town's non-residential zoning is limited to portions of Taft Highway and includes two districts: Commercial (C-1) and Light Manufacturing (LM-1). C-1 is predominant and permits a suburban, small footprint development pattern that is auto-dependent. LM-1 is limited to the Bread Basket and a storage facility just north of Pinecrest Baptist Church.

## REGULATIONS AND POLICY: PAST PLANNING EFFORTS

As mentioned at the beginning of this section, Walden's most recent land use planning efforts are the Walden's Ridge Area Plan and the Walden Town Center Plan from 1997 and 1998, respectively. The Walden's Ridge Area Plan included Signal Mountain and the unincorporated portions of Hamilton County. As for future development in Walden specifically, the plan envisioned a low-density residential character for the majority of the Town and the preservation of environmentally sensitive features. A walkable, commercial center with a mixture of uses was identified in the heart of Walden. Extension of sewer along Taft Highway was recognized as necessary to realize this vision, but that has not been implemented as of this writing. The lack of progress on this issue has been a key factor in limiting the development of a center.

The Walden Town Center Plan grew out of the Walden's Ridge Area Plan effort. The plan focused on creating a true center for the Town that hoped to tie together existing commercial area and new development on the west side of Taft Highway. The plan was developed with extensive public involvement. Key recommendations included streetscape improvements to the frontage road, the creation of a pedestrian-friendly "Town Square" on the west side of Taft fronted by modest scaled mixed-use buildings; and a focus on the improvement and expansion of parks and trails in the area to connect the Town Center with the rest of the Town. Walden's Town Center Plan became the basis for updates to the Town's zoning ordinance that led to the creation of the Village Center zoning district.





Key

Urban Collector

Average Daily Trips

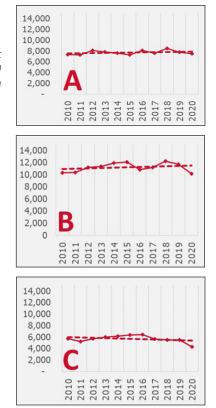
streets predominantly mimics a conventional cul-de-sac pattern, meaning there is a lack of connections between local streets. Therefore, the major routes must carry all the traffic, and will continue to do so into the future, further exacerbating traffic volume increases, which have slowly risen over the past decade. Furthermore, shifts in traffic patterns (i.e., commuters traveling to/from Chattanooga), have increased the delay experienced at non-signal-controlled intersections along Taft Highway.

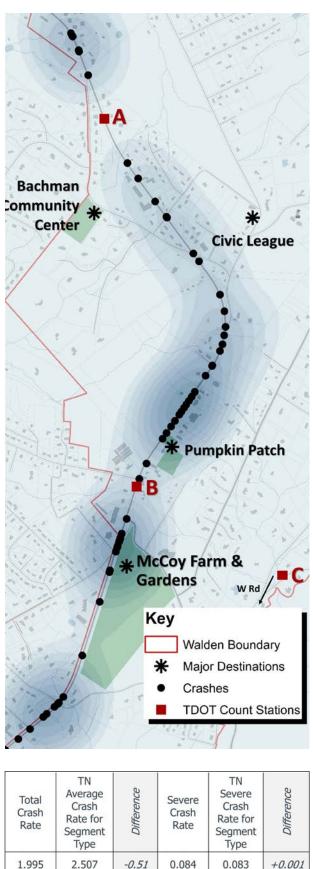
#### MOBILITY: TAFT HIGHWAY

Taft Highway is a two-lane urban minor arterial state route facility that serves as the primary route on Walden's Ridge Plateau, connecting Sequatchie County, Walden, Signal Mountain, and the Chattanooga Valley. According to TDOT traffic count stations, the heaviest volumes in Walden are experienced near Timesville Road. Between 2010 and 2019, there was a 14% increase in the annual average daily traffic (AADT) at this location.

Between 2017-2019, there were 64 crashes along Taft Highway within the Town limits, two of which involved suspected serious injuries. The 2017-2019 crash rate, or the number of crashes compared to exposure (i.e., traffic volumes), was below the statewide average for a roadway of this type and context, although the severe crash rate was slightly higher. Crash "hotspots" along the corridor include the Anderson Pike/James Boulevard and Miles Road intersections, as well as near the Ace Hardware entrance.

TDOT traffic count stations along Taft Highway (A, B, and C) provide data on traffic volume between 2010 and 2020 (right). Data on crashes compared with state averages for similar road types (bottom right)





## REGULATIONS AND POLICY: PAST PLANNING EFFORTS

#### **Regional Transportation Plan**

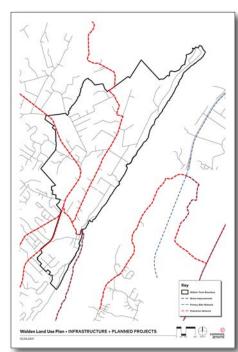
There are several ways major projects are fed into the project development and construction process; however, a region's long-range transportation plan, the 2045 Regional Transportation Plan (RTP) in Walden's case, acts as a critical planning tool. Regionally significant studies and projects are identified, and funding assigned to create a fiscally constrained list to be implemented by 2045.

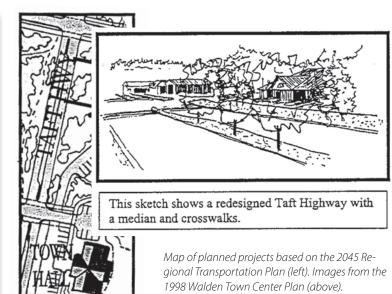
There are currently two projects on this list which impact Walden. First, TDOT will be evaluating the feasibility of a new roadway connection between Timesville Road and Shackleford Ridge Road during the 2021-2025 timeframe. The Town of Signal Mountain is providing the local funding match of 20% for this study. Second, \$7 million worth of preventative maintenance is identified for the W Road in the 2036-2045 timeframe. This project encompasses major repair work and does include smaller improvements, such as paving. TDOT is currently conducting a Road Safety Audit Review (RSAR) of the W Road to identify needed near-term spot safety improvements.

#### Sub-area and Town Center Plan

In addition to the RTP, two other Chattanooga-Hamilton County Regional Planning Agency (RPA) plans influence land use and transportation decisions in Walden. These include the Walden's Ridge Plateau Area Plan, developed by the RPA in 1997, and Walden's Town Center Plan, which resulted from an extensive community planning effort in 1998.

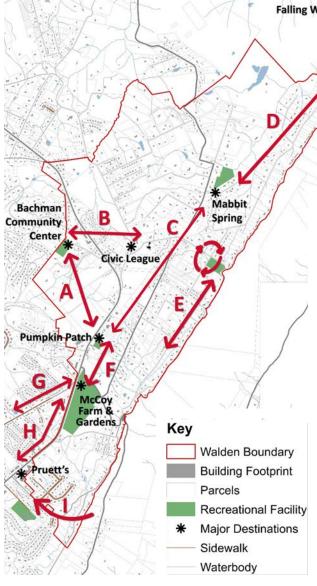
The Area Plan identifies the potential Timesville connector (previously mentioned) as important for improving emergency response times and general connectivity on the Plateau. Additionally, the plan identifies widening Taft Highway to four or five lanes. Counter to this recommendation, the Town Center Plan identified the desire to largely leave Taft Highway's two-lane cross-section as is, although with the addition of a center landscaped median for access and speed management and aesthetic benefits. Frontage roads, or connections off-corridor, should instead be provided to separate local and regional traffic. Furthermore, residents identified roundabouts, safe crossings, and medians, in general, as being important mechanisms for slowing traffic down on Taft Highway in Walden's Town Center.





Detail of the new

landscaped area.



STRAVA

#### MOBILITY: PEDESTRIAN CONNECTIVITY

Walkers wearing reflective vests to alert drivers

The only dedicated infrastructure for pedestrians and bicyclists is the sidewalk network located in Brow Estates, a newer subdivision on the southside, as well as the soft-surface trails in Walden's open spaces. Despite this, Walden's streets are active with people walking and bicycling. Residents and visitors alike are attracted to the Plateau, in part, to be active. There is a noted presence of long-distance bicyclists who are drawn by the challenge of the W Road, scenic setting, and relatively low-volume roadways. Residents from all stages of life frequently walk Walden's residential streets, greeting their neighbors in these important public spaces. Visitors stroll shaded streets to access nearby trailheads. The personal trip-tracker app, Strava, shows especially high numbers of people walking and bicycling on roadways, such as East Brow Road, Lake Avenue, Wilson Avenue (north of Lake Avenue), Ivory Avenue, and Glenway Avenue.

Despite the number of active shared streets. there have been no reported pedestrian or bicycle crashes in the past 10 years in the town limits off the Taft Highway corridor. This does not, of course, include "near-misses." Two bicyclists were struck on Taft Highway near the Fairmount Pike intersection. Although not within Walden, a bicyclist was struck on the W Road just south of the town limits, while a pe-Taft Highway, near the location of an existing marked crosswalk across Taft Highway.

#### **REGULATIONS AND POLICY:** PAST PLANNING EFFORTS

#### Regional Bicycle and Pedestrian Plan

Regional Bicycle and Pedestrian Plan The RPA's Chattanooga Area Regional Bicycle and Pedestrian Plan, completed in 2010, identifies a desired future walking and biking network. While the projects are unfunded, pedestrian infrastructure is envisioned for Taft Highway, Wilson Avenue, and Anderson Pike/W Road, the community's arterial roadways. Bicycle infrastructure is identified for Taft Highway as part of the region's "primary and secondary bicycle network", although the type and design of these facilities are envisioned to be driven by local decisions.

For the past three TDOT Multimodal Access Grant cycles, the Town of Walden has submitted an application for funding assistance to construct a shared use path along Taft Highway. This pathway would provide a safe walking and bicycling connection between the Pumpkin Patch, Town Center, McCoy Farm and Gardens, and Elberfeld Drive/Signal Mountain town limits. The Town is anxiously waiting for TDOT's announcement of the 2021 grant recipients.

#### Sub-area and Town Center Plan

The Walden's Ridge Plateau Area Plan emphasizes the importance of pedestrian and bicycle infrastructure for the Plateau. Supporting a high quality of life and relieving traffic on local streets are important reasons for providing safe and comfortable active transportation and recreation opportunities. The Town Center Plan heavily emphasizes the community's desire for safe walking and bicycling infrastructure, including trails, sidewalks, greenways, and crosswalks. In fact, trails/sidewalks were identified as the number 1 service or activity most needed in Walden. Additional needs and recommendations from this plan, include:

- Providing safe crossings for bicyclists and pedestrians across Taft Highway, including the potential for a tunnel or bridge;
- Utilizing Laurel Avenue for park and trail access, including potentially constructing a parking area adjacent to the Pumpkin Patch;
- Providing "loop trails" behind the businesses on the east side of Taft Highway by extending the Laurel Avenue connection to the proposed passive park at Fairmount Pike, envisioned to include walking trails and picnic areas.



Bicycle/pedestrian facility identified along Taft Highway in the 2010 Regional Bicycle and Pedestrian Plan (above). Proposed connection between McCoy Farm and Pumpkin Patch overlaid on map of town and state-owned property (right).



destrian was hit in the vicinity of Ault Road and









#### **IMPLEMENT**

#### PLANNING PROCESS

The Town of Walden Plan was created through a simple four-step planning process.

#### **UNDERSTAND**

Available data related to the project was inventoried and analyzed to determine how it might affect or inform planning. (see A Snapshot of Walden in 2021 in this chapter)

#### PLAN

The charrette method was utilized to directly engage the community in the design process and maximize their input. A charrette (/ SHə'ret/) is an intense, collaborative planning and design session over a short period. It includes multiple opportunities for stakeholders to put forth their ideas as well as provide feedback on preliminary recommendations and concepts created by the team. (see Public Input on the following page)

#### REFINE

After the charrette, concepts were evaluated and refined based upon feedback received from stakeholders. This document was produced, which includes the final concepts, supporting graphics, and recommendations for the Town of Walden. After review by the Land Use Committee, the draft plan was presented to the public for final input.

#### **IMPLEMENT**

After the Draft Plan Presentation, final revisions were made based on input received to produce the final Plan that provides a clear, straightforward blueprint for the future of Walden.

#### PUBLIC INPUT RECAP

Public input is critical to the planning process. Outside experts bring their experience working in other places, and residents bring their experience living, working, and playing in their own community. Working together, stakeholders and consultants can envision what is possible and desirable within the context of the place. For this planning effort, there were four key community engagement opportunities for the consultant team to learn and gather input on ideas—each engagement opportunity built on the previous one to create a series of feedback loops. The goal was not to achieve unanimity but to achieve consensus on direction. An overview of each engagement event follows.

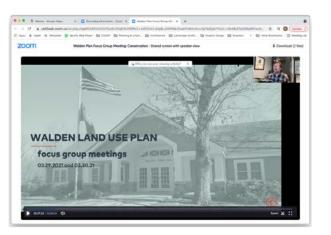
#### KICK-OFF

The project kicked off in early March when COVID protocols were still in place due to the pandemic. The protocols forced some rework to the schedule. The consultant team was able to travel to Walden, however, for a socially distanced tour of the community with Land Use Committee members and the new Mayor. All meetings, however, were held virtually, recorded and uploaded to the Town's website on a page dedicated to the planning process. The turnout at the virtual Public Kick-off Meeting to introduce the project was held via Zoom from Town Hall. While the input received was useful, admit tedly, turnout was light. The Land Use Committee decided that extra effort was necessary to maximize community input going forward.



#### **FOCUS GROUP MEETINGS**

In late March, the consultant team held a series of virtual meetings with various focus groups. The meetings occurred over two days and including the following groups: non-profit organizations, government agencies, connectivity and mobility advocates, neighborhoods, conservation advocates, and Taft Highway focus area property owners.





During the Kick-off Trip, the Land Use Committee led the consultant team on a site tour. The tour was not limited to the Taft Highway focus area. It included the entire community with featured stops at Bachman Community Center, the Civic League, Topside, Mabbitt Springs (above), Falling Water Falls trailhead, The Little Brown Church, East Brow, McCoy Farm and Gardens, and the existing commercial areas along Taft (left). After the Kick-off Trip, pandemic protocols forced focus group meetings to be held virtually via Zoom (top).

#### **CHARRETTE**

As mentioned previously, a charrette is an intense, multi-day brainstorming session that involves community engagement throughout. The Town used direct mailings, social media, email, and signs placed throughout the community to advertise the charrette to maximize input. The event occurred over four days in mid-May. It began on a Saturday morning at the Fire Hall with a Public Hands-on Planning Session involving more than 50 community members. This session involved a presentation on key findings from the consultant team and an interactive exercise with attendees. Walden was just beginning to emerge from pandemic protocol, so the exercises consisted of six individual stations where participants had the opportunity to weigh in on specific issues and provide their own ideas for the future of Walden. CHCRPA was generous to provide staff members to assist the consultant team.

For the remainder of the charrette, the consultant team set up a remote studio in Town Hall, reviewed the input from the Hands-on Session, and brainstormed initial concepts. At the end of the second day, the consultant team met with the Land Use Committee to present the initial concepts and confirm direction. The public was invited to drop into the remote studio, review the team's work, and provide additional insight. On the last evening of the charrette, the consultant team hosted a Work-in-Progress Presentation at the Bachman Community Center. The team presented the results of the initial Handson Session and preliminary concepts for public input.

#### DRAFT PLAN PRESENTATION

After review of the Draft Plan document by the Land Use Committee, the Draft Plan was presented to the community for review and input. The plan was posted for a public review period.













Charrette Hands-on Planning Session interactive stations (far left, top and bottom); Working on concepts at the team's remote studio in Town Hall (top, right); Meeting with the Land Use Committee to confirm direction (above); Discussing concepts with citizens that dropped by the studio (left).

#### WHAT WE HEARD AT THE CHARRETTE

#### **Connectivity Priorities**

- McCoy Farm to Pumpkin Patch via Laurel
- McCoy Farm to Signal Mountain/Cumberland Trail
- Pumpkin Patch to Mabbitt Springs
- McCoy Farm to Pruett's

#### **Taft Highway**

- 2 lane section with median along frontage road and center turn lane elsewhere
- Protected pedestrian and bicycle facilities
- Improved intersection with Anderson/W Road

#### **Town Center**

- Mixed-use
- Pedestrian-friendly
- Low-rise
- Mix of housing types
- Sewer concerns

#### Wayfinding priorities

- Trail signage
- Maintenance through signage, interpretation, and donation
- · Wayfinding along streets for key assets

#### Sustainability priorities

• Incorporate alternative stormwater techniques

#### **KEY THEMES**

Based on the input from the Kick-off, Focus Group Meetings, and the Charrette the following key themes emerged:

#### Walden's Places

Land use and design policy to preserve the rural mountain character of Walden and guide the character of future development along Taft Highway in the heart of the community.

#### Walden's Treasures

A framework to protect and enhance Walden's civic assets for generations to come.

#### Safely Connecting Walden For All

Transportation policy and prioritized project recommendations intended to make Walden a more connected and safe community for pedestrians and bicyclists.

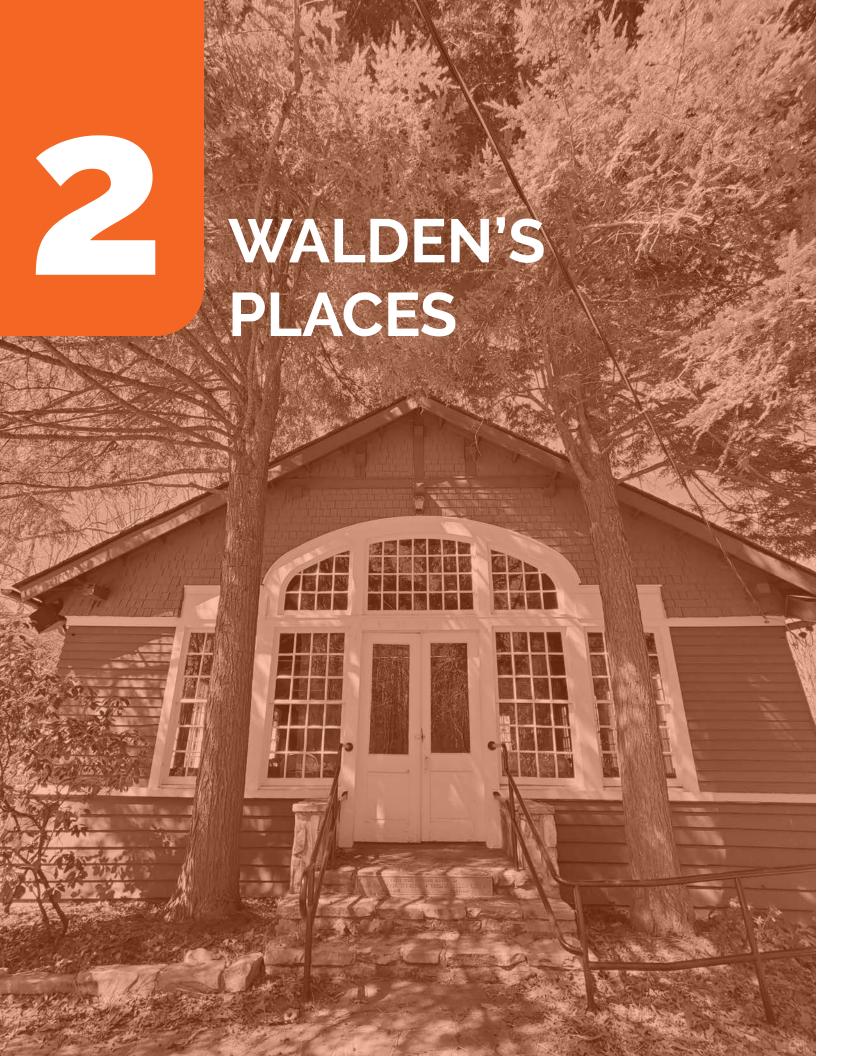
#### Promoting a Sustainable and Resilient Walden

Environmental policy intended to guide future development and preserve Walden's sensitive features.

#### The Heart of Walden

A design framework to guide the future development of a mixed-use, walkable center that will enhance Walden and create a true heart for the community.

The plan is organized according to these key themes, and the recommendations under each are intended to inform development decisions over the next twenty years.



## [ land use and character ]

raditionally, land use plans simply identified where the appropriate locations ▲ for particular land uses were within a community. Today, communities are as much, or more, interested in the form or character of development over land use. To understand this trend, consider a downtown and a commercial highway strip. Both would be identified as commercial on a land use map, but their character is very different. Incorporating development character into land use policy includes addressing elements such as the type, placement, and height of buildings. This allows a community the ability to be more specific about its vision for future development.

#### **HOW TO USE LAND USE POLICY**

It is important to note that land use policy is not zoning. Zoning is the set of regulations governing the development of property. Land use policy is intended to be used by the Town to inform decisions on development proposals, whether it is zoning change request or the review of a site plan. It is also the foundation for revisions to the Town's zoning and other regulations to implement the land use policy in the plan.

#### TECHNICAL FEASIBILITY OF **NEW DEVELOPMENT OR** REDEVELOPMENT

It is imperative for property owners and developers to understand that this plan sets forth a vision for future development or redevelopment within the Town, but it does not warrant that proposed development designed to meet this vision is guaranteed approval. The environmental impacts of development in the community must be considered with any proposal. In addition to meeting the standards established by Walden and Hamilton County, proposed development should clearly demonstrate that it has been designed to minimize its environmental impact and address infrastructure constraints. It is recommended that the Town add a requirement for applicants to attend a pre-application conference with Town officials to discuss their proposed development before submitting a formal request for approval from the Chattanooga-Hamilton County Regional Planning Agency or the Town. This will provide the Town and the applicant an opportunity to discuss the project, expectations, and the Town's vision. Finally, the Town may wish to engage a consultant to perform a market analysis for certain uses and a fiscal impact analysis to assess the impact of new development on the Town.

## THE CHCRPA "PLACE TYPES" APPROACH

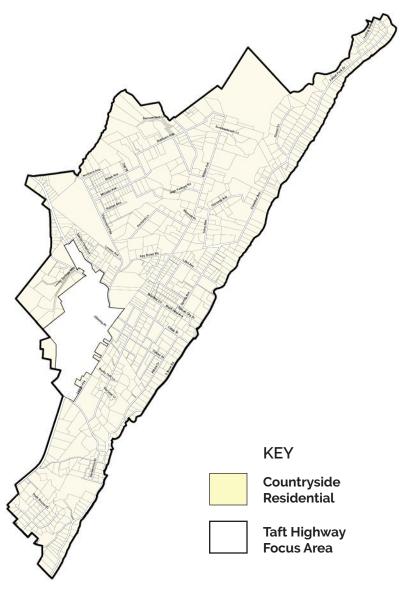
The Chattanooga-Hamilton County Regional Planning Agency (CHCRPA) assists the Town of Walden to review development proposals because the Town does not have its own Planning Commission or planning staff. This plan intends to use the CHCRPA's "Place Types" approach to land use policy as a basis for the land use policy in this plan. According to CHRPA, they have "created a palette of 20 Place Types to help people visualize the various forms that development

can take and to help residents describe the future they envision for their community" (RPA Place Types List, 3/5/21). This approach aligns well with this plan as the Town of Walden has a similar desire to establish a clear vision for the future of Walden. It also ensures that this plan is as seamless as possible with CHRPA policy, which is intended to make the agency's review assistance easier.

The CHCRPA's Place Types guide (3/5/21) addresses a range of contexts from most urban to most rural. Each Place Type policy includes a description of the ideal condition; guidance on the form and character of development; precedent images illustrating similar proposed character; and a list of primary and secondary uses. The Place Types are considered a general palette of places, and the land use policy is intended to be customized for each community. That is the case with this plan. Key concepts for land use policy are mapped and described on the following pages beginning townwide and ending with the plan's Taft Highway focus area.

#### **KEY CONCEPTS · TOWNWIDE**

This plan envisions a single Place Type policy for the area of Walden outside of the Taft Highway focus area, comprising approximately 2,000 acres in the Town. This policy is based on the community's heritage, current conditions, and community desire and has been customized to reflect these.



TOWNWIDE LAND USE POLICY MAP

#### **COUNTRYSIDE RESIDENTIAL**

Countryside Residential is the CHRPA's most rural single-family detached residential land use policy. These areas are characterized by single-family homes on large lots creating large blocks.

#### **Key Characteristics:**

#### SITE AND BUILDING CHARACTER

- Single-family houses on large lots with a minimum of two acres
- Front setbacks are typically deep
- Buildings are typically no more than 2.5 stories
- Sites consist of natural vegetation or natural landscaping

#### MOBILITY AND ACCESS

- Streets are generally narrow with swale-type drainage and designed to work with the topographic features of Walden's Ridge
- Sidewalks are not typical with the possible exception of routes between key destinations
- · Pedestrian and bicycle accommodation is more often through walking trails and bicycle routes
- Individual lots are primarily accessed from the front, and parking is located in the front, side, or rear of the lot

#### PRIMARY LAND USES

Single-family detached residential, accessory buildings, non-commercial farming activities

#### SECONDARY LAND USES

Civic/institutional facilities

#### APPROPRIATE ZONING DISTRICTS

A-1, R-1

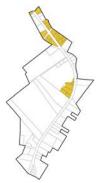


Precedent imagery for Taft Highway Residential

### **KEY CONCEPTS • TAFT HIGHWAY FOCUS AREA** The Taft Highway Focus Area is approximately 177 acres and much more varied in its envisioned use and character. This reflects the nature of Taft Highway as a busy state highway, current conditions, and community input. This plan envisions six Place Type policies customized for the focus area. KEY Countryside Residential Taft Hwy Residential Taft Hwy Non-residential Town Center **Town Center** Neighborhood Preserve Existing/Proposed Parks Civic/Institutional Taft Hwy Buffer **New Town Square** 1/4 mile radius (5 minute walk)

TAFT HIGHWAY FOCUS AREA LAND USE POLICY MAP





Taft Highway Residential is a land use policy intended to increase housing choice by allowing existing residential lots in the focus area to redevelop in the future with single-family or two-family uses on lots less than two acres. It also recognizes that some of these existing older lots are less than the current two-acre minimum lot size requirement. These parcels are mostly in the northern portion of the focus area and directly fronting on Taft Highway. The policy is akin to CHRPA's Surburban Residential Place Type, a "predominantly low intensity, single-family detached residential pattern" that encourages a limited mix of housing types.

## Key Characteristics: SITE AND BUILDING CHARACTER

- Single-family detached or two-family attached houses on existing lots
- Depending on infrastructure, several, small detached houses grouped around a landscaped courtyard may be on a single lot
- Front setbacks are generally consistent with adjacent residential lots along Taft Highway
- Buildings are typically between 1 and 2.5 stories
- Two-family attached houses are designed to look like a single-family residence
- Sites consist of natural vegetation or landscaping

#### **MOBILITY AND ACCESS**

- The majority of these lots are accessed from Taft Highway
- Sidewalks or a shared-use path are included along the frontage to create a consistent pedestrian/bicycle network

#### PRIMARY LAND USES

Single-family detached residential, two-family attached residential (duplexes), accessory buildings

#### SECONDARY LAND USES

Civic/institutional facilities

#### APPROPRIATE ZONING DISTRICTS

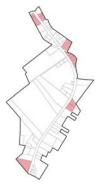
The special permit for "Townhouses in R-1" along Taft Highway in the zoning ordinance would need to be revised or a new zoning district with appropriate design standards created.







Precedent imagery for Taft Highway Residential policy



#### TAFT HIGHWAY NON-RESIDENTIAL

The Taft Highway Non-residential policy is applied to existing non-residential development along Taft north of Fairmount Pike in the focus area. This policy recognizes that these properties, which are already zoned for non-residential, will likely remain non-residential. However, it is important that if these properties redevelop in the future, the character of the development is improved. The current character of these properties is more suburban in character with buildings set back from Taft and parking between the building and the highway. The policy most closely aligns with CHCRPA's Suburban Corridor policy; however, this suggestion confused some people at the charrette. When "suburban corridor" was mentioned, they associated

the term more with Brainerd Road than Taft Highway. The policy has been renamed and modified in this plan to be more reflective of Walden with guidance for redevelopment.

## Key Characteristics: SITE AND BUILDING CHARACTER

- Buildings are generally set back from the highway, but a standard setback ensures that new development has a more consistent presence along the highway
- Buildings have a small to medium footprint (up to +/-5,000 sf) or designed to resemble buildings with a small footprint
- Buildings are typically 1 story, not to exceed 2 stories
- Parking is typically located between the building and the highway and is limited to one double-loaded bay of parking with additional parking to the side or rear of the building
- Parking lots that front the highway or other roads have perimeter landscaping to screen the parking lot from the highway

#### MOBILITY AND ACCESS

- The majority of these lots are accessed from Taft Highway
- Sidewalks or a shared-use path along the frontage creates a consistent pedestrian/ bicycle network
- Adjacent properties have cross access easements, which allow cars to move between properties without re-entering Taft Highway

#### PRIMARY LAND USES

Commercial (retail, restaurants, entertainment, personal services, offices, etc.)

#### **SECONDARY LAND USES**

Civic/institutional

#### APPROPRIATE ZONING DISTRICTS

C-





Precedent imagery for Taft Highway Non-residential policy

#### **COUNTRYSIDE RESIDENTIAL**

This plan applies the Countryside Residential Place Type to an extensive portion of the focus area to create an appropriate transition to large single-family lots northwest of the Town Center and Town Center Neighborhood Place Types. This policy also acknowledges the topographic constraints in this area as well as Middle Creek in an attempt to be sensitive to these environmental features. See the description of Countryside Residential earlier in this chapter for additional information



#### **PRESERVE**

During the charrette, the consultant team completed a cursory slope analysis of the focus area based on available topographic data. The purpose of this task was to identify areas with moderate (15%-25%) slopes and extreme slopes (25%+). This plan envisions those areas with extreme slopes be preserved with the possible exception of creating a key road or trail connection.

## Key Characteristics: SITE AND BUILDING CHARACTER

Structures should be limited to those associated with trails and designed to minimize disturbance to sensitive environmental features

#### MOBILITY AND ACCESS

Roads, bicycle paths, pedestrian paths are designed to minimize disturbance to sensitive environmental features

#### PRIMARY LAND USES

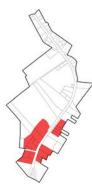
Undisturbed open space, passive recreation space, trails

#### APPROPRIATE ZONING DISTRICTS

Any



Precedent imagery for Preserve policy



#### **TOWN CENTER**

This plan recognizes the desire by the Town of Walden to create a true center and heart for the community. The Town Center Place Type is applied to both sides of Taft Highway, generally centered around Town Hall and the Pumpkin Patch. The Town Center Place Type most closely aligns with CHCRPA's Village Center Place Type, which envisions a compact, pedestrian-friendly center with a mix of uses and a smaller scale than typical town centers with bigger, taller buildings. Concerning existing development in the area, this plan recognizes that it will most likely remain; however, there is an opportunity to create a more cohesive character if those properties redevelop in the future. Chapter 6 of this plan provides more de-

tail on the concept of creating a Town Center, but the following is a general description of the policy.

## Key Characteristics: SITE AND BUILDING CHARACTER

- New development is master planned in a manner that creates a network of streets and blocks connected together
- Front setbacks are shallow or non-existent, and off-street parking is located behind or below buildings
- Buildings are generally 1 to 2.5 stories, though in some instances, buildings may be 3 stories to terminate an important street vista or accommodate topographic features
- Town centers feature a mixture of uses both horizontally (along a street) or vertically (in the same building)
- Buildings, which are often right next to each other, have a small to medium footprint or are otherwise designed to minimize their mass and bulk visually
- Buildings are designed to respond to the natural topography to minimize significant mass grading
- Buildings generally have shopfronts at street level to improve the vitality of the street
- Wide sidewalks and small courtyards accommodate outdoor dining
- Town centers often have a central square or green that functions as a central gathering space for the community
- Utilities are located underground

#### MOBILITY AND ACCESS

- The natural features of the site shape new streets and blocks
- New streets are designed to naturally calm

- traffic through narrow travel lanes, on-street parking, and street trees
- Sidewalks are generally wider than in more residential areas
- Bicycles are accommodated through shared travel lanes and, in the case of key connectors, bicycle lanes.
- Parking is generally accessed from an alley or rear lane

#### PRIMARY LAND USES

Commercial (retail, restaurants, entertainment, personal services, offices, etc.), single-family attached residential (townhouses), multi-family residential on upper levels (flats)

#### **SECONDARY LAND USES**

Civic/institutional

#### APPROPRIATE ZONING DISTRICTS

A revised and updated VC-1 or a new district with appropriate design standards.



Precedent imagery for Town Center policy (see Ch. 6 for more)



#### TOWN CENTER NEIGHBORHOOD

Walden has the opportunity to address the needs of housing choice and increase inclusivity while maintaining the small-town character of the community. This plan applies the Town Center Neighborhood Place type to a portion of the focus area west of Taft Highway and generally east of Middle Creek. The Town Center Neighborhood Place Type most closely aligns with CHCRPA's Urban Residential Place Type, which features a range of housing types in a compact, pedestrian-friendly pattern. Chapter 6 of this plan provides more detail on the concept of providing a range of housing types in a Town Center, but a general description of the policy is presented here.

## Key Characteristics: SITE AND BUILDING CHARACTER

- New development is master planned in a manner that creates a network of streets and blocks connected together.
- There is a mixture of residential building types, from single-family detached residential to small multi-family (up to 6 units per lot)
- Front setbacks are shallow, and off-street parking is located behind, beside, or below buildings
- Buildings are designed to engage the street with stoops and porches.
- Buildings are generally 1 to 2.5 stories, though in some instances, buildings may be 3 stories to accommodate topographic features
- Buildings are designed to respond to the natural topography to minimize significant mass grading
- Neighborhoods include small parks, trails, and other public spaces for use by residents
- Utilities are located underground

#### MOBILITY AND ACCESS

- The natural features of the site shape new streets and blocks
- New streets are designed to naturally calm traffic through narrow travel lanes, on-street parking, and street trees
- Sidewalks are prevalent on both sides of the street
- Bicycles are accommodated through shared travel lanes and, in the case of key connec-

- tors, bicycle lanes.
- Parking is generally accessed from an alley or rear lane, though access from the street may be necessary where topographic constraints exist

#### PRIMARY LAND USES

Single-family detached residential, single-family attached residential (townhouses), small-footprint multi-family residential (mansion flats-4 to 6 units per building max.)

#### SECONDARY LAND USES

Civic/institutional

#### APPROPRIATE ZONING DISTRICTS

A new zoning district with appropriate bulk and design standards would need to be created to implement this policy.



Precedent imagery for Town Center Neighborhood policy (see Ch. 6 for more)

#### CIVIC/INSTITUTIONAL AND PARKS

Some key civic and institutional sites have been identified on the Framework Plan for the focus area. This is not a specific Place Type but rather an acknowledgment of these key sites and the intent to preserve and enhance them. Sites include the Pinecrest Baptist Church, the WRES Fire Hall, Walden Town Hall, and a portion of the St. Augustine Catholic Church property. This plan does recommend converting town-owned land near the intersection of Taft and Fairmount Pike into passive park space and trails with the possibility of expansion through the acquisition of the vacant parcel directly south owned by Walden's Ridge Emergency Services.











Images of some of Walden's civic and institutional facilities and parks in the Taft Highway Focus Area

#### **RECOMMENDATIONS**

#### (0, 5, 20-YEAR TIMEFRAME)

#### DO THIS NOW

- 2.1 Adopt the Town of Walden Plan as the Town's official land use policy and use it to inform municipal decisions on development proposals.
- 2.2 Update the zoning ordinance and other development regulations to align with the land use policy recommendations for the Town Center Place Types in the Taft Highway Focus Area (see chapters 5 and 6 for more detail on specific zoning recommendations).
- 2.3 Add a pre-application meeting requirement between a developer and Town officials.

#### DO THIS WITHIN 5 YEARS

- 2.4 Consider conducting a housing and retail market analysis to forecast the market potential for various residential and retail uses
- 2.5 Consider conducting a fiscal impact and benefit analysis of the policies in this plan.
- 2.6 Create a new zoning district with site and building design standards to implement the Taft Highway Residential Place Type.
- 2.7 Update the site and building design standards for the C-1 zoning district to align with the Taft Highway Non-residential Place Type.

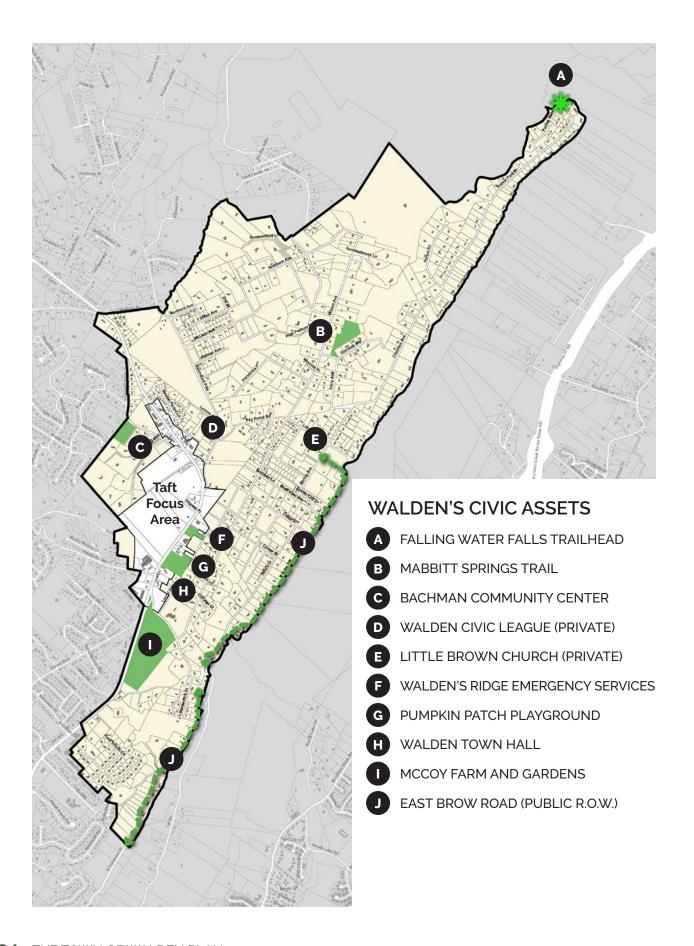
#### DO THIS WITHIN 20 YEARS

2.8 Review the land use policy in the Town of Walden Plan every five years and adjust it as needed to reflect changes in community preference, market conditions, infrastructure, or other factors that could affect the quality of life.



## [ civic assets ]

Talden has many treasures among its places and people, but this section is focused on some of its civic assets. Civic spaces and facilities are a crucial ingredient in a community's quality of life. Walden is blessed with several important spaces both within and just outside the community. The Pumpkin Patch, McCoy Farm and Gardens, Bachman Community Center, and the Civic League combine recreational space with facilities serving several purposes. Falling Water Falls, Mabbitt Springs Trail, and the Eastern Brow are more recreational in nature. These spaces serve an important function as places of gathering and active and passive recreation; however, they can also be a liability. Popularity invites people from outside the community to enjoy these places with less regard for the residents of Walden. It is a double-edged sword. Visitors can be great for a community's economy, but if the quality of these places wanes, it becomes detrimental to the community and, more importantly, its citizens.



#### **CURRENT CHALLENGES**

The Town has supported sites such as McCoy, Bachman, and the Pumpkin Patch and should continue to do so. However, there are some challenges with other sites where the Town has identified the need for attention. The current, most important challenges for the Town's civic assets seem to come from transient visitors to its recreational amenities. Falling Water Falls is a state natural recreational area, but access is from the Forest Park neighborhood in Walden. Visitors must travel to this location by car, and directions on the state's website direct visitors through Walden's residential streets, including Key Hulse, Lake, Ivory, Chestnut, and finally Forest Park Drive. This creates two key challenges: vehicular and pedestrian conflicts since there are no sidewalks and issues with parking. The Mabbitt Springs Trail is owned by the Town and intended to be for residents, but its popularity has also created parking, traffic, and speeding issues. Other challenges include the lack of wayfinding signage, wandering off trails leading to erosion concerns, and trespassing on private property. Chapter 3 addresses connectivity and mobility issues, but concepts to address these other challenges are included here.



## THE IMPORTANCE OF MANAGING WALDEN'S ASSETS

It is inherent that managing Walden's assets sustains them for future generations of its citizens. There may be some trepidation about encouraging more visitors from outside the community, however. While these treasures are part of Walden, there is great benefit in sharing them with others. Heritage and recreational tourism is a key economic generator in many communities. If the community realizes its vision of a Town Center, visitors may stay a little longer to eat in Walden's restaurants and visit its shops. This can help offset the lost revenue from ending the Hall Income Tax.





Issues at Mabbitt Springs include on street parking along Glenway (left) and lack of formal, off-street parking (above). Similar issues with Falling Water Falls have plagued the Forest Park neighborhood for years (top). It is important to address three factors at these sites: parking, trailheads, and trail signage.

34 THE TOWN OF WALDEN PLAN
WALDEN'S TREASURES 35

#### **KEY CONCEPTS**

#### **PARKING**

#### The Pumpkin Patch

A new parking area is envisioned on the east side of the Pumpkin Patch Playground accessed from Laurel Avenue. This parking area will serve the playground and serve the future Laurel Avenue shared use path envisioned to connect McCoy Farm and Gardens with the Pumpkin Patch and eventually continue north toward Walden's other facilities.

#### Mabbitt Springs Trail

Currently, parking for the Mabbitt Springs trail consists of a small gravel area off Glenway Avenue. This small gravel area should be made more formal with clear markings or a low wood barrier defining the limits of the parking area.

Other barriers and signage could be useful to deter on-street parking. Direct access to the trail from the parking area should be better defined.

#### Falling Water Falls Trail

Parking for the popular trail is a triangular-shaped paved area just off the curve of where Forest Park Drive turns into Falling Water Trail (a road). The area has no space markings and is simply insufficient for the volume of visitors, which leads to illegal on-street parking. There are two potential solutions the Town should consider. One would be to add clearly defined on-street diagonal parking along the frontage of the state property. Another solution, perhaps the most ideal, would be to work with the state to create off-street parking at the property entrance just east of the trail, where the land is fairly level.







Trail parking areas should be designed to compliment the natural character of their surroundings. Features such as wood rail fences, pervious paving, timber bollards delineating no parking zones, and natural landscaping can formalize parking areas without detracting from the surrounding character.

#### **ON-GOING MANAGEMENT**

Trail Signage for key issues (private property, stay on trail, erosion, education, etc.)
In general, the trails in Walden are not signed very well, which has led to several issues. To combat this, the Town should budget to add signage along portions of the trails where issues currently occur. This would include signage that:

- Identifies private property to minimize trespassing;
- Instructs hikers to stay on the trail to minimize erosion problems; and
- Educates hikers on the history of Walden and the importance of maintaining trails.

The Town should consider installing donation meters at Pumpkin Patch Playground, Mabbitt Springs, Falling Water Falls (in coordination with the state), and potentially a few locations along the East Brow. These meters are typical-







ly repurposed parking meters and may be an effective tool to secure donations from visitors outside of the community.

The Town may also consider pursuing a relationship with an entity, such as the Boy Scouts, Girl Scouts, or other civic organizations, willing to "adopt" some of these facilities and maintain them.

#### TRAILHEAD SIGNAGE

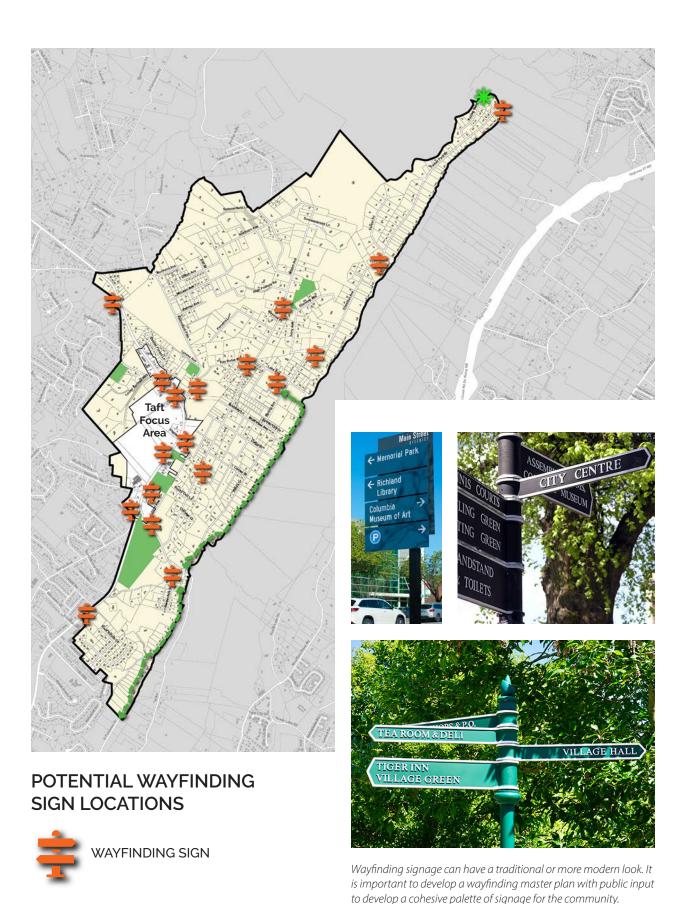
Coordinated trailhead signage is important in creating a cohesive look and feel to the community. The two priority locations would be Mabbitt Springs and Falling Water Falls. The trailhead at Mabbitt Springs could be designed in conjunction with an improved parking area and replacement of the worn bridge over Little Falling Water Creek. The trailhead at Falling Water Falls could also be incorporated into parking improvements. All trailhead signage can be included as part of a Way-finding Master Plan.

Maintenance concepts include trail signage to prevent wandering and trespassing (left, top and bottom), educational signage (bottom, left), and trail donation meters to raise maintenance funds (far left). Trailhead signage should be right-sized for the facility and the design coordinated to create a cohesive look and convey the appropriate information.





36 THE TOWN OF WALDEN PLAN WALDEN'S TREASURES 37



#### **WAY-FINDING SIGNAGE**

Wayfinding signage is important to direct visitors to key places in the community. It also helps to direct these visitors along a particular path the Town intends for them to take. Strategically placed wayfinding signage also helps to tie a community together with a consistent character. The Town should complete a Way-finding Master Plan for the entire community, including concepts for the size and design of the signage and a phasing strategy. The Parks Committee could serve as the Steering Committee for the plan, since they are already working on identifying signage priorities. The plan should include robust public input. As a starting point, some ideal locations for wayfinding signage have been identified in the Framework Plan.

#### **PROMOTION**

Once there has been progress on improvements to Walden's civic assets and their management, it is recommended that the Town "get the word out" about these great assets to the greater community. In addition to potential economic benefits for the future Town Center, this promotion provides the opportunity to let visitors know when and how to visit these places and what to do when they are there. The following are ways to promote:

- Printed materials for local businesses and regional visitor's centers;
- A dedicated page on the Town's website;
- Working with Google, trail apps, and similar services to highlight locations and ensure that routes and driving directions are consistent with the Town's plan; and
- Working with Signal Mountain and Hamilton County on cross-promotion.

#### **RECOMMENDATIONS**

(0, 5, 20-YEAR TIMEFRAME)

#### DO THIS NOW

- 3.1 Complete a Wayfinding and Trailhead Signage Master Plan for the entire Town
- 3.2 Appoint the Parks Committee to serve as the steering committee for the Wayfinding and Trailhead Signage Master Plan
- 3.3 Consult with mapping companies (Google, Waze, Bing, Apple, etc.) and other app developers to revise routings as needed
- 3.4 Add a dedicated page on the Town's website with information on key civic sites and links to their websites as possible
- 3.5 Install "Private Property" trail signage in all locations where trails cross private property
- 3.6 Identify problem areas along trails where visitors tend to leave the trail and install "Stay on Trail" signage
- 3.7 Identify erosion issues along trails and install educational signage to discourage further damage
- 3.8 Improve the parking area at Mabbitt Springs
- 3.9 Construct a new trailhead at Mabbitt
  Springs and replace the pedestrian bridge
- 3.10 Work with the state to improve the parking area at Falling Water Falls
- 3.11 Work with the state to construct a new trailhead at Falling Water Falls
- 3.12 Construct parking area for the Pumpkin Patch near the terminus of Laurel Avenue

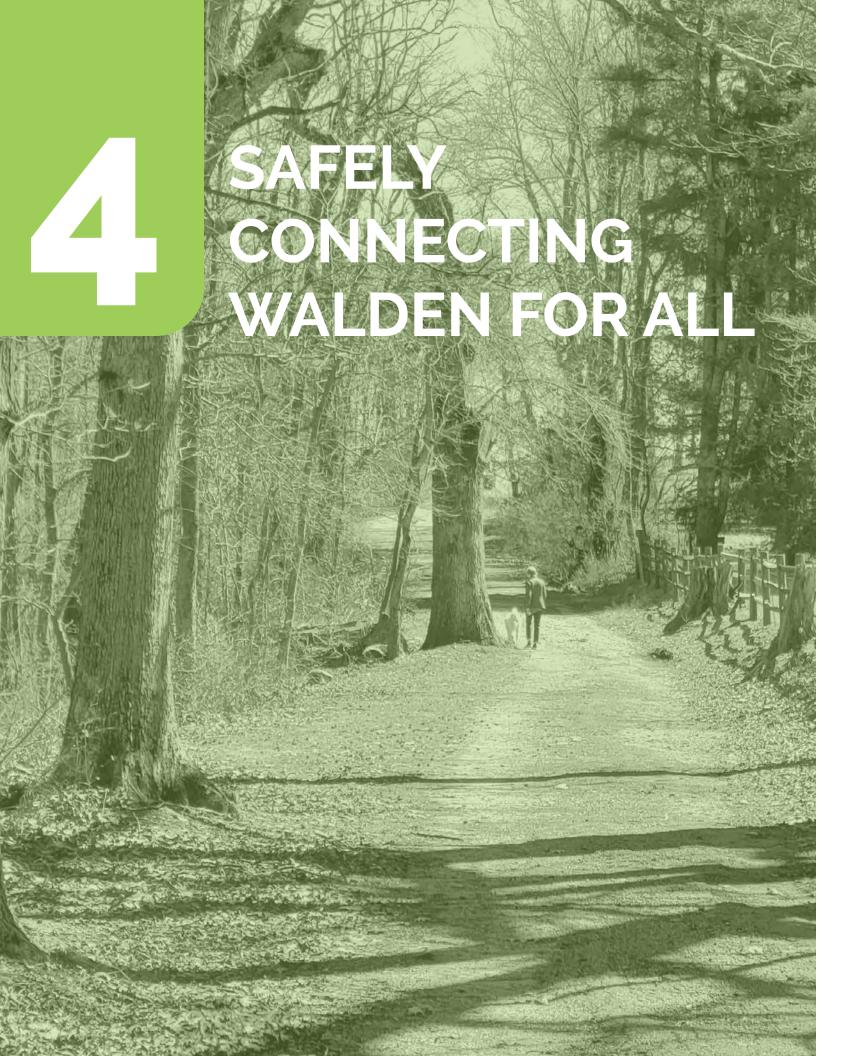
#### DO THIS WITHIN 5 YEARS

- 3.13 Begin early-phase implementation of the Wayfinding and Trail Signage Master Plan
- 3.14 Install trail maintenance donation meters at trailheads and other key sites

#### DO THIS WITHIN 20 YEARS

3.15 Complete implementation of the Wayfinding and Trail Signage Master Plan

38 THE TOWN OF WALDEN PLAN WALDEN'S TREASURES 39



## [ mobility ]

**T**hether to live or visit, people are drawn to Walden's Ridge, given its scenic and natural beauty, as well as the availability of recreational trails, open space, and parks. The Ridge has long been a draw for Chattanooga residents and beyond since the days of Walden's historic Summertown community and continues to be, with the community's trail destinations exploding in popularity in recent years.

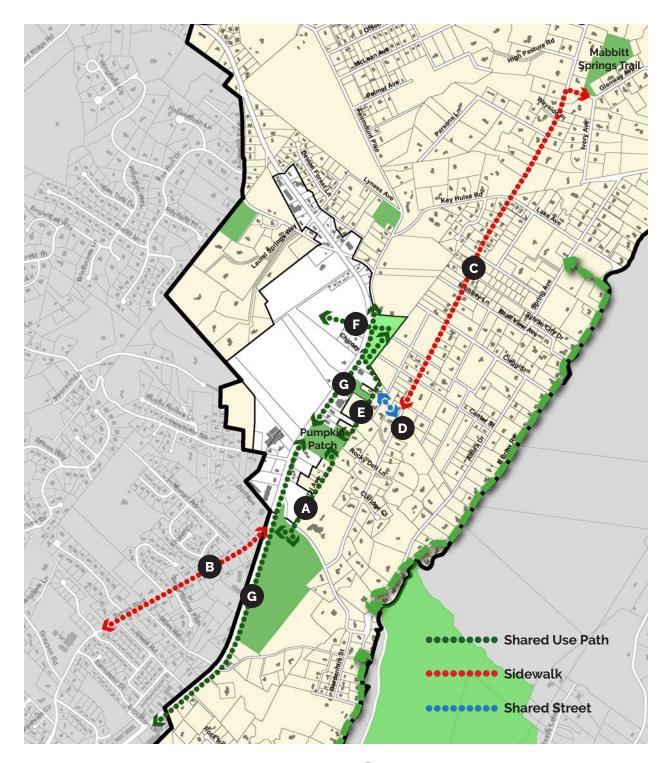
Active living is and has been strongly valued by Walden residents. During the 1998 planning process for the Town Center Plan, residents identified walkability and bikeability as an important community issue that needed to be addressed, with sidewalks and trail infrastructure identified as the number one service or activity that was most needed in Walden at the time. Safe streets, in general, were a common theme throughout the Plan and its recommendations.

The 2019 Walden land use planning survey, greenways, walking trails, sidewalks, and bike lanes ranked as highly desirable for the community. During the 2020 mayoral election, walkability and bikeability in Walden again rose to the top as topic of community interest. Ensuring safe and comfortable walking and bicycling connections to Walden's resources and assets. and safe streets, in general, is viewed as a critical component to supporting Walden's mission for a high quality of life.

#### SAFETY AND MOBILITY ISSUES

Residential development to the north of Walden in the county has led to shifts in travel patterns, specifically during commuting hours. Queues at certain intersections are experiencing increases in delay as gaps in cross-traffic decrease. Additionally, increased traffic on residential shared streets, also due in part to the rise in popularity of hiking trails, has diminished the comfortability and safety for those walking and bicycling, specifically during peak hours.

Currently, the only dedicated infrastructure for pedestrians and bicyclists are the sidewalks in the Brow Estates Subdivision. The remaining roadways act as shared streets where people walking and bicycling share space with vehicles, especially given the general lack of shoulders and narrow roads. The low-density development pattern and challenges of mountain-top construction (e.g., narrow rights-of-way, topography, and stormwater management) create barriers to providing pedestrian and bicycle networks; therefore, critical connections should be prioritized for construction with other lowcost methods applied to key shared streets.



#### **CONNECTIVITY PRIORITIES**

- A MCCOY TO PUMPKIN PATCH
- B MCCOY TO SIGNAL MT.
- C PUMPKIN PATCH TO MABBITT (WILSON)
- D PUMPKIN PATCH TO MABBITT (MINETTA)
- E PUMPKIN PATCH TO MABBITT (MINETTA)
- F UTILITY EASEMENT CONNECTION
- G WALDEN TO SIGNAL MT. (SEE CH. 6)

#### **KEY CONCEPTS**

#### **CONNECTIVITY PRIORITIES**

Recognizing the challenges of expanding the pedestrian and bicycle networks, priority connections the Town should pursue in the near term were identified by residents. The increasingly popular McCoy Farm and Gardens and the Pumpkin Patch are important community hubs, which residents desire to connect as their number one priority connection. This connection, utilizing Laurel Avenue, was also identified as an important element in the 1998 Town Center Plan.

Although in Signal Mountain's jurisdiction, completing the existing gaps in the sidewalk network on James Boulevard near Taft Highway was second most important. Bridging these short gaps would allow residents and visitors of both communities to seamlessly travel between McCoy and Signal Point Reservation, all on a sidewalk. This four-mile connection would provide access to several destinations within Signal Mountain, including the library, playhouse, country club, Althaus Park, and the regional Cumberland Trail, while providing Signal Mountain residents access to McCoy and, eventually, the Pumpkin Patch.

The third most important identified connection was the Pumpkin Patch to Mabbitt Springs, a scenic 2-mile soft-surface trail that connects Glenway Avenue to Falling Water Falls State Natural Area. Extending the proposed Laurel Avenue shared use path east within the existing right-of-way to eventually connect to Wilson Avenue provides the most direct connection between these destinations. The Laurel Avenue extension would also give back access to the Bread Basket, new Fire Hall, and Ace's Hardware, a connection that was also identified in the 1998 Town Center Plan.

Other connectivity opportunities include a shared-use path along Taft Highway connecting the Pumpkin Patch to Signal Mountain's municipal limits near Elberfeld Road. The Town has pursued grant funding twice (unsuccess-

fully) in recent years to implement this path. In addition, the Town is uniquely positioned with an extensive network of utility easements and right-of-way, seemingly originally intended for roadway construction, for potential trail development. Off-road soft-surface or paved trails could connect low-volume residential streets, provide low-stress alternatives to higher speed or heavily traveled corridors, or provide more direct connections between destinations that could not be accomplished due to the orientation of the existing roadway network. These connections are only possible if Walden does, in fact, own the right-of-way, and the community and impacted property owners are supportive.

Finally, there is a desire to explore connectivity between Walden and the new Walden's Ridge Park south of E. Brow Road along the W Road. While acknowledging the extreme topography and right-of-way challenges, a connection into the park could provide Walden and Signal Mountain residents direct access to the 10-mile mountain bike trail system and rock-climbing opportunities without having to drive to the proposed parking area midway down the W Road.







Examples of some of the locations identified as priorities for improved crossing, clockwise from top, left: Crosswalk across Taft Highway near Hampton Road, Laurel Avenue across Anderson Pike to McCoy Farm and Gardens, East Brow Road and the W Road, and James Boulevard at Taft Highway.

#### **CROSSING PRIORITIES**

Providing safe opportunities for pedestrians and bicyclists to cross roadways is a critical component of a well-connected community. These crossings should be well-marked with reflective thermoplastic striping and enhanced with snow-plowable pavement reflectors and appropriate pavement markings and signage in advance of the crossings. Depending upon expected pedestrian and bicyclist volumes, appropriate pedestrian signalization should be provided.

The crossing at Anderson Pike and Laurel Avenue should be well-signed and marked, given the need for this crossing to accommodate users of all ages and abilities traveling between McCoy and the Pumpkin Patch. A pedestrian-actuated rectangular rapid flashing beacon (RRFB) should be constructed with the implementation of the Laurel Avenue connection. Traverse rumble strips in advance of the crosswalk on either approach could further improve crosswalk visibility.

Providing a safe and comfortable crossing across Taft Highway between McCoy and James Boulevard would be critical once sidewalk gaps are filled. The ultimate location of the crossing depends upon the proposed roundabout's potential location. If located closer to James Boulevard, users would be encouraged to cross at the roundabout; however, if located closer to Timesville Road, an overhead pedestrian signal

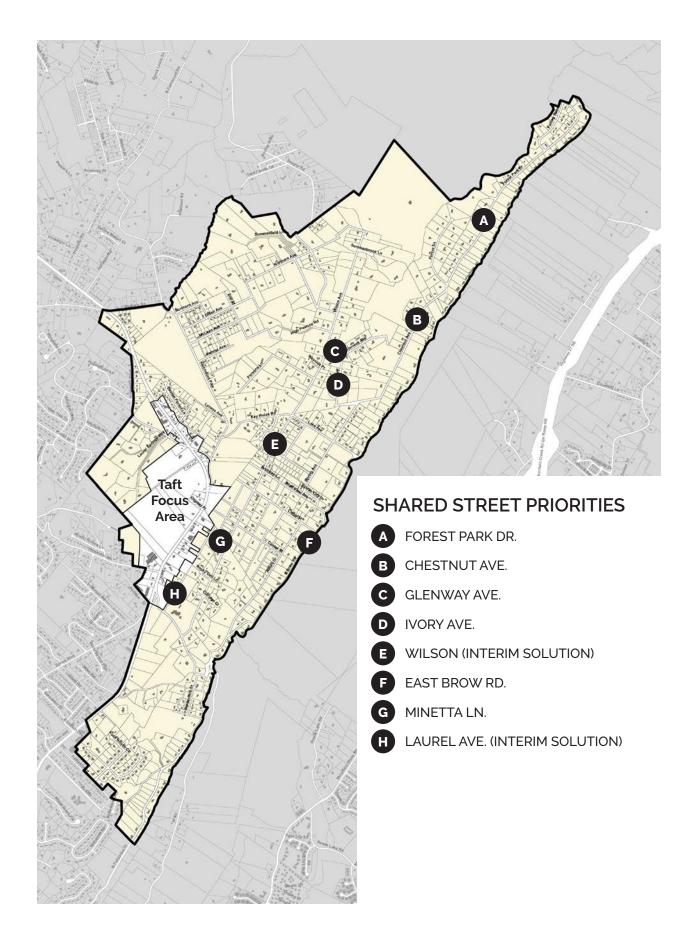
would be evaluated for a more direct connection between McCoy and James Boulevard. A pedestrian hybrid beacon (PHB), overhead flasher, or full traffic signal should be considered at this location.

While largely on private property, the existing connection between the shared Wayside Presbyterian Church parking lot and the Signal Mountain Christian School should be improved to be ADA-compliant (i.e., personal mobility device and stroller accessible). This should include a marked crosswalk with ADA-accessible curb ramps and appropriate approach signage at Key-Hulse Road.

Additional priority opportunities include crossing Taft Highway near Hampton Road. The Plateau's only marked crosswalk across Taft Highway is located 400' to the east of Hampton Road, which is located away from the cluster of commercial destinations. Given the number of destinations, including the Plateau's premier shopping and gathering space, Pruett's Market, additional crossing opportunities should be considered. A final important crossing worth further evaluation is the intersection of E. Brow Road, Anderson Pike, and the W Rd. Topography and roadway alignments create challenges for all roadway users at this intersection; however, it can be especially challenging for the pedestrians and bicyclists that use the popular E. Brow

Example of a Rectangular Rapid Flash Beacon (RRFB) for pedestrian crossings where there is no cross street or traffic signal.





#### SHARED STREET PRIORITIES

Shared streets are an important component of Walden's mobility network, given the challenges of extending pedestrian and bicycle networks. Traffic calming is a tool Walden should explore for supporting safer streets, which uses a three-pronged approach, known as the Three E's of traffic safety. These include enforcement, engineering, and education. Multi-disciplinary strategies under these categories must be coordinated and integrated to truly approach the complex issue of speed reduction.

Enforcement of roadway laws, namely adhering to posted speed limits, encourages safer roadway behaviors. Walden should explore contract-

ing with the Hamilton County Sheriff's Office to provide random speed enforcement in Walden's neighborhoods and along major thoroughfares.

Engineering applications can help to reduce dangerous driving behaviors or alert motorists of the likely presence of people walking or bicycling. For example, speed cushions are a tool that can help support "self-enforcing" roadways by ensuring vehicles travel at an appropriate speed, especially on roadways such as the Brow Road, where pedestrian and bicyclist activity is heavy, and sight distance can be challenging. Other engineering applications include changes to or the addition of pavement striping and markings, signage, and speed-feedback radar signs.







Examples of engineering applications that can curb dangerous driving behavior include rumble strips at pedestrian crossings (above), left), gentle-rise asphalt speed humps (above), and speed cushions (left). These traffic calming applications have evolved over the vears to address issues such as emergency access and forcing near stops at each instance. It should be noted that drill down speed cushions allow bikes and strollers to utilize the gap along the roadway edge. The asphalt style of speed humps have a very gentle slope, so impacts are minimal.

Two potential changes to the existing cross-sections of shared streets, specifically, present opportunities to improve safety through low-cost applications. These include exploring removing the double solid yellow centerline on residential streets, such as Altura Drive or Spring Avenue, and, instead, adding reflective white edgelines. These edgelines, in combination with snow-plowable pavement reflectors and dashed reflective white centerlines (similar to Signal Mountain's Cauthen Way), would help to differentiate

residential streets from those intended to carry heavier traffic volumes; signifying when vehicles enter Walden's "neighborhoods." The reflective striping and pavement reflectors would assist motorists in navigating the roadway during fog or other low visibility events.

An alternative lowcost roadway striping configuration worth evaluating is advisory lanes. This relatively new application in the United States allows pedestrians and bicyclists to use the shoulder space delineated by white dashed lines with vehicular traffic entering the shoulder space to safely pass on-coming vehicles (while yielding to those already using the shoulder). Advisory lanes are only appropriate on certain low-volume, low-speed streets and require further evaluation as well as coordination with impacted residents. Additionally, frequent fog on Walden's Ridge may impact the safe use of this configuation. If implemented, it should be used temporarily until permanent infrastructure can be constructed or as an option to expand the safety of Walden's





Low-cost alternatives to improve safety on local streets include removing center striping and replacing with reflective edge lines (left) and traffic calming techniques, such as chokers, designed to reduce the speed of vehicles.

very low volume/local traffic residential streets, such as Glenway Avenue. Speed cushions might be used in tandem to ensure safe vehicle speeds in locations with poor sight distance.

Finally, education is a component that includes public awareness of the importance of roadway safety as well as educating roadway users. Strategies include yard signs, neighborhood traffic safety campaigns, awareness posters in parks and at businesses, and traffic safety programs at schools. Ultimately, safe behaviors are an individual choice, and improving people's awareness, and attitudes towards shared streets are an important component to increasing roadway safety.



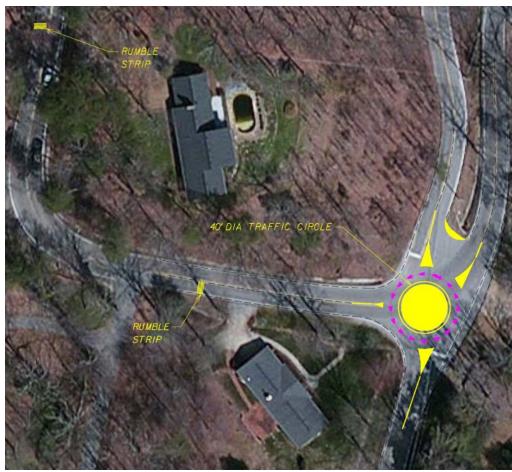


#### W ROAD/EAST BROW ROAD/ ANDERSON PIKE INTERSECTION

Within the next two years, the Town of Walden should secure traffic engineering services to evaluate near- and long-term solutions for improving safety and circulation at the W Road, East Brow Road, and Anderson Pike intersection. An initial evaluation in 2015 identified a potential mini roundabout at this location (illustrated below); however, further study is needed to determine impacts to right-of-way, utilities, and, most importantly, stormwater runoff. Near-term solutions could include the addition of rumble strips, pavement markings, adjusting the striping of the East Brow Road southbound approach (northern leg) to improve visibility, as well as installing a flasher system to alert East Brow Road vehicles, pedestrians, and bicyclists of approaching southbound vehicles from the W Road.



2015 Concept for a roundabout at the intersection of the W Road, East Brow Road, and Anderson Pike.



## **RECOMMENDATIONS** (0, 5, 20-YEAR TIMEFRAME)

#### DO THIS NOW

- 4.1 Explore contracting with the Hamilton County Sheriff's Office for strategic speed enforcement.
- 4.2 Consider passing a three-foot ordinance for both pedestrians and bicyclists. For pedestrians, if no sidewalk or shoulder exists, this would standardize the right for a pedestrian to walk on the edge of the roadway. A passing vehicle must provide the person with a minimum of three feet or must yield to the pedestrian until able to do so.
- 4.3 Identify funding opportunities for implementing identified priorities, including exploring the possibility of a dedicated local funding source for construction.
- 4.4 Consider lowering the posted speed limit on local residential streets from 30 mph to 25 mph to provide greater consistency across the Plateau.
- 4.5 Approach the Town of Signal Mountain regarding completing the sidewalk gaps along James Boulevard near McCoy Farm and Gardens. Consider a cost-sharing structure to construct.
- 4.6 Evaluate traffic speeds and volumes as well as multimodal activity on the E. Brow Road. Implement appropriate traffic calming measures to support a safer shared street, such as signage and speed cushions.
- 4.7 Identify areas along shared streets where graded shoulders (grass or gravel) may be feasible to provide additional maneuvering and/or refuge space for non-motorized street users.
- 4.8 Install regulatory and warning signage along highly trafficked shared streets to improve driver awareness of the likely presence of non-motorized street users and to address on-street parking issues, including signage equipped with flashers to improve visibility during fog events. Special attention should be given at blind

- horizontal and vertical curves. Key candidate streets include East Brow Road, Chestnut Avenue, and Forest Park Drive.
- 4.9 Using wayfinding signage, direct northbound traffic traveling to Falling Water Falls State Natural Area on the W Road/ Anderson Pike to use Wilson Avenue.
- 4.10 Identify funds and implement a shared street on Laurel Avenue, including a crosswalk at Laurel Avenue and Anderson Pike, until a shared-use path can be constructed. Construct connector trails on the Pumpkin Patch and McCoy properties.
- 4.11 Monitor the outcomes of the envisioned TDOT feasibility study for constructing a Timesville Road-Shackleford Ridge Road connector.
- 4.12 Use the Roads and Safety Committee to identify which shared streets should be a priority for near-term implementation.
- 4.13 Continue to pursue TDOT's Multimodal Access Grant for constructing the envisioned shared use path along Taft Highway.
- 4.14 Participate in the TPO's Technical Coordinating Committee (TCC) and/or TPO
  Board to actively participate in long-range transportation planning and policy efforts in the region.
- 4.15 Identify critical locations in need of vegetation pruning and/or removal within the public right-of-way to improve sightlines along well-traveled pedestrian and bicycling routes, particularly those frequented by visitors. Clearance may also provide additional maneuvering and/or refuge space for pedestrians in areas along certain shared streets, such as Chestnut Avenue.
- 4.16 Evaluate near- and long-term solutions for improving safety and circulation at the W Road, East Brow Road, and Anderson Pike intersection.

#### DO THIS WITHIN 5 YEARS

- 4.17 Coordinate with TDOT to monitor when Taft Highway is expected to be repaved. Identify locations where crosswalks are preferred for installation, if possible.
- 4.18 Explore the legality of utilizing Town of Walden right-of-way for potential trail de-

- velopment and evaluate resident support for off-road connections.
- 4.19 Approach the East Tennessee Natural Gas Company to evaluate the feasibility of trail development within their gas line easement.
- 4.20 Complete a follow-up evaluation of roadways where traffic calming was applied to measure the level of success. Identify additional measures as needed, as well as other streets that might benefit from such measures.
- 4.21 Evaluate the feasibility of a direct walking and bicycling connection into the new Walden's Ridge Park.
- 4.22 Identify short, low-stress connections that would extend walking and bicycling connectivity in the community, such as between Parsons Lane and the Wayside Presbyterian Church.
- 4.23 Evaluate improvements to the intersections of Fairmount Pike, Anderson Pike, and Taft Highway.
- 4.24 Consider developing a pedestrian, bicycle, and greenway master plan, parks plan, or comprehensive transportation plan for the community.
- 4.25 Identify a long-term speed enforcement strategy.

#### DO THIS WITHIN 20 YEARS

- 4.26 Monitor the completion of the proposed Cumberland Trail segment north of Walden, envisioned to cross Taft Highway in Sequatchie County, to identify potential connections and opportunities to capture hikers passing through.
- 4.27 Explore pursuing the bicycle-friendly community designation from the League of American Bicyclists.
- 4.28 Establish the proposed passive park at Taft Highway and Fairmount Pike.
- 4.29 Monitor the development and official designation of the proposed U.S. Bike Route (USBR) 121 in the Chattanooga region to potentially route through Walden.



## [sustainability]

Talden's natural features are arguably its greatest asset. These features helped shape the Walden of today and should continue to shape the Walden of the future. They are fragile, however. That does not mean that Walden cannot or should not grow. Reasonable growth can be supported, but it must be balanced with practices that are sensitive to the Town's natural features. The Town can adopt policies to ensure smarter, more sustainable growth.

#### **KEY CONCEPTS**

#### STEEP SLOPES

Steep topography is a key feature on Walden's Ridge, and it is imperative to protect areas with steep slopes. Currently, Walden's zoning restricts building on slopes greater than 25% to a single dwelling per lot. A key concept of this plan is to preserve all slopes of 25% and greater from any development (consistent with current regulations) with the possible exception of an important trail or road connection. Additionally, the Town should consider requiring engineered site plans for development on moderately steep slopes between 15% and just under 25%.

#### TREE PRESERVATION

Mature trees and forested areas are other important assets in Walden. While tree removal is necessary for some development, standards can help minimize tree canopy loss or replace it. A key concept of this plan is for the Town to adopt tree protection and replacement regulations. Such standards would require development to be designed to minimize significant tree removal and create a plan to replace trees through street trees, trees within formal open space, and individual lots. Additionally, the Town should continue support the Save the Hemlock Campaign.

#### **STORMWATER**

Excessive stormwater runoff from development can be detrimental to surrounding property and sensitive environmental features in general. Stormwater runoff is a concern given Walden's geography. Management regulations in the Town's zoning and subdivision regulations are limited. A key concept if for the Town to adopt comprehensive stormwater management regulations.

Best Management Practices (BMPs) should be included in any stormwater ordinance. Stormwater management has evolved greatly over the past twenty years or so from the standard detention pond. While detention and retention will continue to be a tool in stormwater management, there are many new tools that can

reduce and treat runoff before reaching a pond or bypassing it altogether. However, it should be noted that context is important when choosing management techniques. This plan recommends that resources like the Light Imprint Handbook and others be used as a guide for determining the best tools for a particular location.

#### **SPOTLIGHT**

## THE LIGHT IMPRINT HANDBOOK

The "Light Imprint Handbook" guides where and how to use certain low-impact stormwater management techniques based on context or place within a community. The handbook was written by Tom Low, formerly with the world-renowned planning and design firm DPZCo (designers of Seaside, Florida), and Low "advocates that stormwater be returned to the aguifer without being channeled far from its original location." The handbook organizes the tools into four basic categories: Paving, Channeling, Storage, and Filtration. The tools are further classified by context (rural to urban) and other factors such as slope, cost, and maintenance. The handbook concludes with several case studies showing the effectiveness of this approach.



Stormwater techniques such as planters and pervious paving (below), rain gardens (right), and bioswales (bottom, right) are just a few of the tools that can help to reduce and treat stormwater at the source. The right tools depend on context within the neighborhood as well as topographic and soil conditions.







#### WASTEWATER

Wastewater treatment is a significant constraint for the Town of Walden, particularly related to the development of a Town Center. The Town is largely without access to sewer and depends on individual septic systems. The Moccasin Bend treatment facility is at capacity, and there is currently a moratorium on new connections to the existing sewer system (primarily affecting Signal Mountain). The Hamilton County Wastewater Treatment Authority has no immediate plans to expand the existing facility. That leaves future growth in Walden stymied with few alternatives. One alternative would be to work with Sequatchie County on the possibility of extending sewer service from there to Walden. This alternative is likely best but will have a significant cost and lengthy implementation. The other alternative is to consider a decentralized wastewater treatment system for the Town Center area.

Decentralized systems are similar to conventional septic systems, with the exception that the secondary treatment is separate from the primary treatment. Typically, each unit has its own septic tank (sometimes groups of units share a tank), and the effluent is then pumped to a secondary treatment area. This type of system has been used successfully in locations with a variety of constraints, including topographic, as well as areas with mixed-use development (see sidebar next page).

The challenge of such a system for Walden, however, may be its topography and shallow soils. Adapting the system to Walden's conditions may add a significant cost, the impact of which is beyond the scope of this plan. Nevertheless, these systems have been promoted by the Environmental Protection Agency as a good alternative to conventional sewer and septic, and if maintained properly, good for the environment. A key concept in this plan is for the Town to initiate further study into this type of system

54 THE TOWN OF WALDEN PLAN

A SUSTAINABLE AND RESILIENT WALDEN 55

## SPOTLIGHT SERENBE

Serenbe is a 1,000 acre new, private development community in the rural hills of Chattahoochee Hills, GA. The community is comprised of three hamlets, each with a mixture of uses and housing types in a compact, pedestrian-friendly arrangement. At completion, the community will have preserved 70% of its land in natural open space. Currently, Serenbe boasts about 800 residents.

Since the site had no sewer and the developer was committed to urban, green building, the development features a decentralized wastewater treatment system that utilizes constructed wetlands and sand filter to treat wastewater for reuse as irrigation. The community and its commitment to sustainable building practices has led it to receiving several awards.





and its use in the Town Center while continuing to work with Signal Mountain, Hamilton County, and Sequatchie County on a comprehensive sewer strategy.

#### LIGHT POLLUTION

Another concern that arose during the charrette was that of light pollution from new development. The concern is valid, particularly when you consider the potential for commercial development and lighting for buildings, streets, sidewalks, and parking areas. Walden's zoning has no current standards for site and building lighting. A key concept is for the Town to adopt lighting standards for, at a minimum, the Taft Highway focus area.

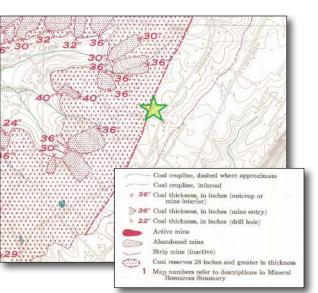
The town should consult information from the International Dark Sky Association, which produced a model lighting ordinance for municipalities in conjunction with the Illuminating Engineering Society of America.



Outdoor lighting has a variety of aesthetics. The key to minimizing light pollution is to choose fixtures with shields that direct light down to the ground or directly on the object.

#### LEGACY MINE RECLAMATION

Abandoned legacy coal mines in the area of the proposed Town Center have been discussed as a threat to waterbodies from runoff and a potential constraint to future development. A May 2021 article in the Tennessee Lookout reported that a recent study by the Ohio Valley Institute estimated that it would cost \$126 million to clean up the 14,000 acres of known mines in Tennessee. This number is well above the annual state and federal budgets for mine cleanup. Despite the hefty price tag, the Tennessee Department of Environment and Conservation's Abandoned Mine Land Program has made progress having spent over \$44 million in state and federal funding to reclaim over 4,000 acres of abandoned mines since 1981. The Tennessee Department of Agriculture monitors water quality associated with abandoned mine runoff and offers best management practices for reclamation. A key concept of this plan is the Town to work with state officials in the Land Reclamation Section to study the Walden area for potential reclamation projects. In the short term, the Town should consider hiring the services of a geologist to explore the coal seam and related issues



Fairmount Sewanee Coal Map showing coal locations in Walden. The heart of Walden's Town Center is where the green star is located.

#### **RECOMMENDATIONS**

#### (0, 5, 20-YEAR TIMEFRAME)

#### DO THIS NOW

- 5.1 Adopt supplemental standards to provide more guidance for protecting steep slopes from significant development
- 5.2 Adopt stormwater management standards for the Taft Highway Focus Area that incorporate location-specific Light Imprint stormwater techniques to mitigate runoff.
- 5.3 Adopt lighting standards for non-residential and Town Center development.
- 5.4 Conduct a study to determine the effectiveness of a decentralized wastewater treatment system for development within the Town Center.
- 5.5 Work with Signal Mountain, Hamilton County, and Sequatchie County to develop a comprehensive sewer strategy for Walden and the region.
- 5.6 Continue to support the Save the Hemlocks Campaign (https://www.facebook.com/SaveSignalMtnsHemlocks).
- 5.7 Hire the services of a geologist to explore the coal seam and related issues.

#### DO THIS WITHIN 5 YEARS

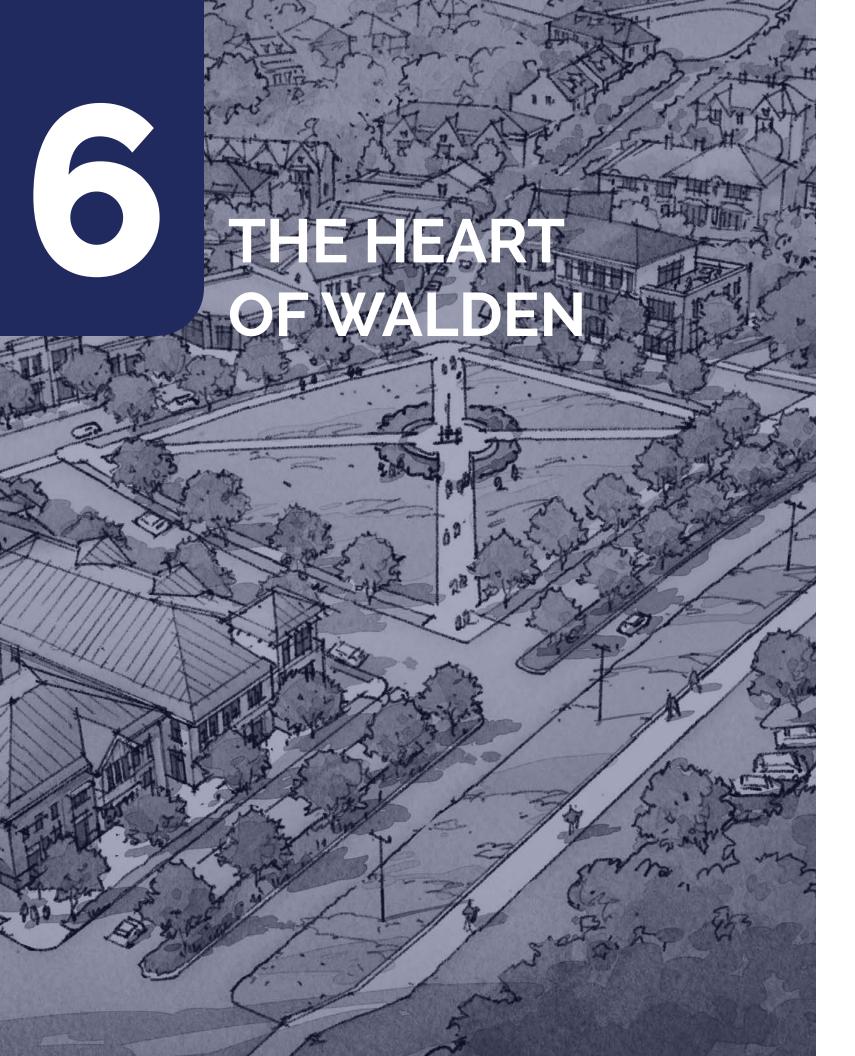
5.8 Adopt tree preservation and replacement standards in areas where growth is planned to occur, such as along Taft Highway.

#### DO THIS WITHIN 20 YEARS

- 5.9 Work with TDEC's Land Reclamation Section to identify potential abandoned mine reclamation projects, which can be added to the Abandoned Mine Land Program.
- 5.10 Begin implementation of the comprehensive sewer strategy.

56 THE TOWN OF WALDEN PLAN

A SUSTAINABLE AND RESILIENT WALDEN 57



## [ a new town center ]

s established earlier in this plan, if new commercial development comes to Walden, it should have a walkable, mixed-use character. The uniqueness of a community's heart does not come from a suburban, commercial strip of franchise architecture but rather how its buildings, streets, and public spaces work together to create a sense of place.

#### **ILLUSTRATIONS AND IMAGERY IN THIS CHAPTER**

This chapter is not intended to establish a specific master plan or site plan for Walden's Town Center. It is intended to provide a framework that establishes the qualities a successful center should exhibit. Likewise, the illustrative plans, renderings, and precedent imagery should not be considered as the actual design of Walden's Town Center, but as a guide for its desired character and a foundation for changes to the Town's development regulations. The reality is that there are multiple property owners in the focus area and the ultimate design and size of Walden's Town Center will be affected by many factors including natural constraints, infrastructure constraints, and market realities. While these factors must be addressed, none diminish the will of the community to set the tone of their vision for Walden's heart.

## KEY CONCEPTS • THE VIBRANT CENTER OF A SMALL COMMUNITY

A vibrant town center includes a mixture of uses that serve the needs of the community and visitors. It features a form and character where buildings, sidewalks, and streets work together to create a public space where people feel comfortable walking and lingering. Careful attention must be given to the placement, height, and massing of buildings to achieve this. Parking and access are critical as well because few things make a street less walkable than a sea of asphalt parking and continuous curb cuts for vehicles. To a slightly less extent, the architecture and landscaping of a place also contribute to its character. However, it is not necessary to force a particular style of architecture to achieve a great street. It is more important to make sure the basic elements of a building and site complement the street. The following guidance is intended to reinforce and supplement the Place Type policy established in Chapter 2.

## Building Placement, Height, and Massing

Buildings are placed close to the street but may feature occasional recesses to accommodate outdoor dining or a small courtyard. Ultimately, however, the goal should be to create a fairly consistent building face along the street. This helps to define the sidewalk and street space, creating a more pedestrian-friendly environment. Building height will be limited due to infrastructure and other site constraints, but a low-rise character is also appropriate to the character of Walden. Ground-level retail, however, typically has a higher ceiling than upper floors. Buildings should also have smaller footprints or resemble buildings with smaller footprints to minimize their mass.

#### **Parking and Access**

Parking is necessary for Walden's Town Center, but it should be in the background of the center, or, at the very least, screened from the street—with the sole exception of on-street

parking. Individual buildings should not have their own parking, but rather parking should be consolidated to encourage a "park once" concept where you park once and walk between various destinations. Access should be limited to what is necessary to accommodate personal and service vehicles.

#### Architecture

Concerning the details of buildings, articulation and transparency are important. Articulation is the use of elements such as slight shifts in the building facade or the use of openings to reduce the mass of a building. Similarly, transparency the use of windows and doors—is an important consideration in the character of a street. Buildings with retail at street level should feature significantly more windows, or shopfronts, than residential uses at street level or on upper levels. It is recommended that shopfronts be required on buildings fronting the Town Square to encourage retail/dining uses at street level. This plan does not recommend the establishment of a particular style of architecture. Still, it recommends creating a palette of materials and architectural features derived from Walden's historic character and other mountain towns. This palette should provide a jumping-off point for architectural creativity.

#### Landscaping

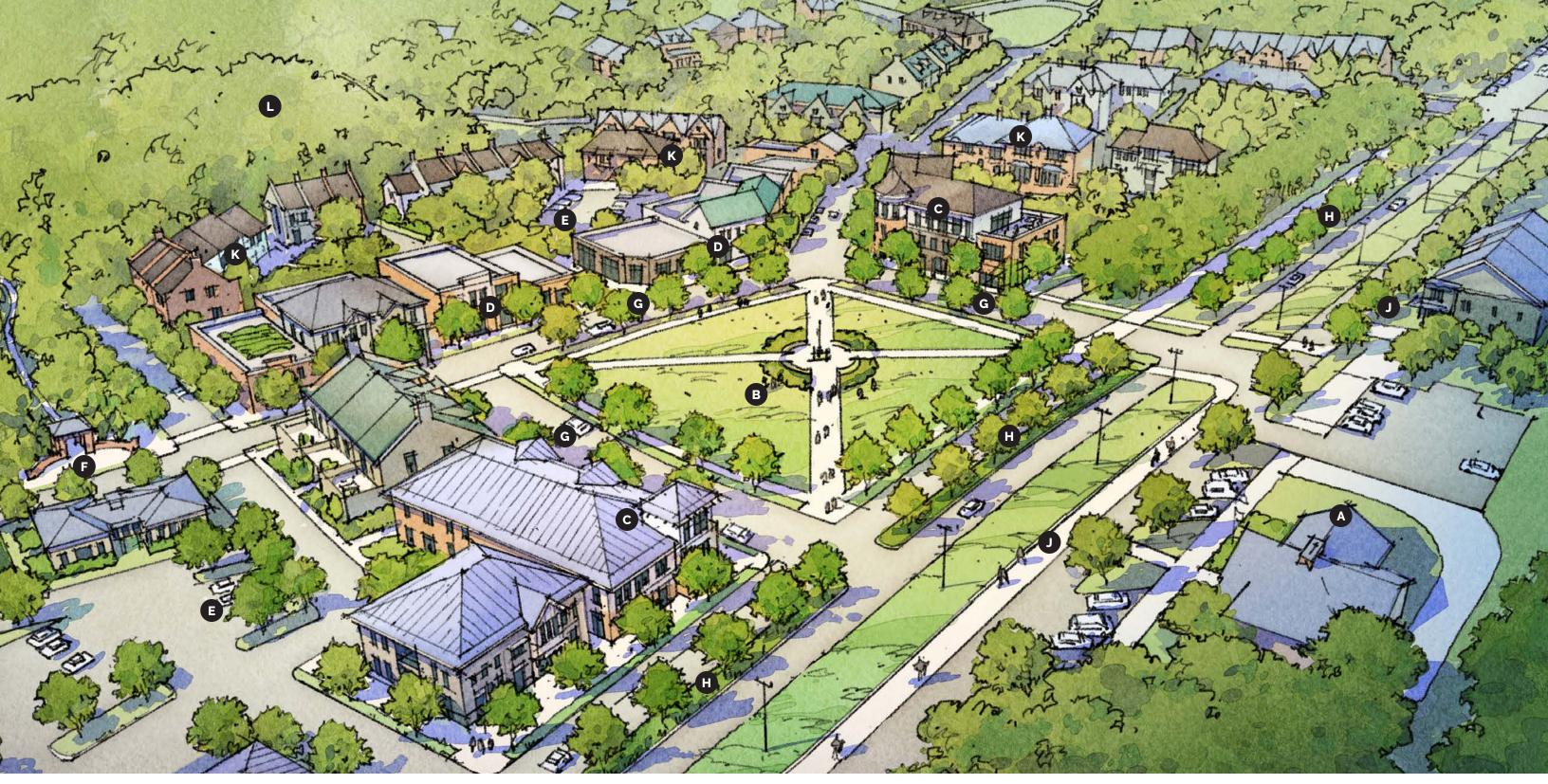
Unlike lots with single buildings and yards on all sides, landscaping should be more formal in the Town Center. Primary landscaping should be in the form of street trees within planters that also help mitigate stormwater runoff. Secondary landscaping should be used to soften courtyards, and shallow setbacks, as well as screen refuse containers, equipment, or, if necessary, parking areas from the street. Along Taft Highway, a natural landscape buffer should be maintained to reduce the visual impact of new development



#### TOWN CENTER ILLUSTRATIVE PLAN

- A Current Town Hall and Pumpkin Patch Playground
- Town Square framed by 1 to 2.5 story mixeduse buildings with wide, tree-lined sidewalks
- Parking behind or tucked below buildings as topography permits
- New pedestrian-friendly street connecting center to roundabout and neighborhood
- Townhouses and similar housing types create a transition to less intense areas
- Single-family detached and similar housing types create a transition to large lot areas
- G Trailhead connecting new trail network to the center
- Low-intensity commercial or residential infill along Taft and the frontage road

60 THE TOWN OF WALDEN PLAN
THE HEART OF WALDEN 61



#### TOWN CENTER ILLUSTRATION

- A Current Town Hall and Pumpkin Patch Playground
- B Square as focal point of the Town Center framed by buildings
- C Low-rise commercial or mixed-use buildings built close to wide sidewalks
- Buildings vary in height and articulation to minimize massive uninterrupted facades.
- Parking is located to the rear or below structures when topography allows
- F Trails through natural areas connect to the Town Center at strategic points

- Town Center streets should feature wide sidewalks, street trees, and on-street parking
- Tree-lined median incorporated into Taft Highway along Town Center frontage
- Maintain natural buffer along edge of Taft Highway where possible
- Multi-purpose path on the east side of Taft Highway along the frontage road
- Transition from Town Center with mixture of housing types on pedestrian-friendly streets
- Preserve sensitive environmental features and substantial open space in a natural state

62 THE TOWN OF WALDEN PLAN
THE HEART OF WALDEN 63





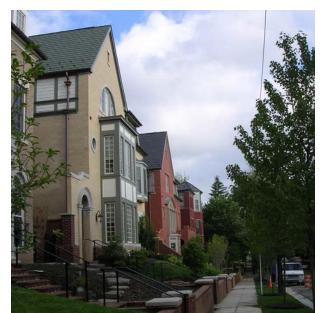


















#### PRECEDENT IMAGERY

Pg. 64, left to right, top to bottom: Buildings with retail and dining uses should have shopfronts at street level to create an inviting streetscape. Buildings incorporate a mix of materials found in Walden and other mountain towns as well as pedestrian-friendly signage, awnings, lighting, and other features. Buildings vary slightly in placement and form to promote variety. Small court-yards provide opportunities for outdoor dining and seating. Buildings frame streets that are designed to naturally calm traffic. Buildings with residential forms are appropriate in small rural mountain towns. Well-designed and articulated urban buildings are also appropriate.

Pg. 65, left to right, top to bottom: Village-inspired residential buildings arranged in a manner to create semi-private courtyards. Residential buildings built close to the street with porches and stoops adjacent to the sidewalk. Small footprint multi-family successfully integrated into the streetscape. Streets should accommodate street trees and on-street parking where possible. Slope permitting, parking can be tucked under houses off a service lane.

64 THE TOWN OF WALDEN PLAN

## KEY CONCEPTS · HOUSING CHOICE FOR MULTIPLE GENERATIONS

A key component of a successful Town Center is the inclusion of housing. Residential uses should not be in a single building type but rather a mixture of detached and attached housing types seamlessly integrated into the center along with an interconnected system of streets and blocks. This arrangement provides for housing choice that meets a variety of needs for all walks of life. Similar to the more commercial heart of the Town Center, the form and character of its residential streets are equally important to promote the walkability of a community. It is envisioned that neighborhood layout would respond to the natural features of the area. The following guidance is intended to reinforce and supplement the Town Center Neighborhood Place Type policy in Chapter 2.

## Building Placement, Height, and Massing

On neighborhood residential streets, buildings continue to be an important way of framing the streets. However, on residential streets, buildings should have some front yard between the building and the sidewalk. Front yards should not be deep as in more suburban and rural settings but may vary based on topography. Unlike more commercial areas, buildings often include porches and stoops that provide an elevated, semi-private space between the interior of the building and the street. The height and massing of buildings should be limited, and groups of dwellings, such as townhouses, should have occasional breaks to reduce perceived mass.

### Parking and access

Ideally, parking is located to the rear of dwellings and accessed by a rear lane or alley. Walden's topographic conditions warrant some leniency in this regard. Where lots drop off significantly, there are two approaches to parking. First, parking can be tucked under a building. Second, parking can be accessed from the front of the lot, and the garage either recessed from

the front facade or the garage and house form a parking court along the street. The key is to de-emphasize the parking and the garage to the extent possible.

### Architecture

Similar to the more commercial heart of the Town Center, it is more important to address basic building components to ensure that buildings present a good face to the street than push a particular style. This can be accomplished by establishing basic standards for facades, openings (windows and doors), roofs, and other elements (porches, stoops, etc.). An acceptable material palette should also be considered, but recent changes in state law have limited the ability of municipalities to enforce such standards on residential buildings. Instead, it may need to be limited to recommendations.

### Landscaping

Landscaping in the form of street trees is just as important in residential areas as it is in the heart of the center. Landscaping can also be used to soften the base of buildings between porches and streets. A light hand is recommended when it comes to landscaping standards on private property, but encouraging it is suggested.



### TOWN CENTER NEIGHBORHOOD ILLUSTRATIVE PLAN

- A Neighborhood greens provide space for active and passive recreation
- A mixture of housing types in a compact village-like arrangement
- A mixture of lots and housing types fronting a network of pedestrian-friendly streets
- New pedestrian-friendly street connecting neighborhood to Town Center
- Rear lanes provide access to parking where topography permits
- Trail along utility easement with potential connection to greater Walden
- G Trailhead connecting new trail network to the neighborhood
- Substantial amount of preserved open space provides transition and reduces footprint



### TOWN CENTER NEIGHBORHOOD ILLUSTRATION

- A Triangular green beautifies, slows traffic, and provides opportunity for green infrastructure
- Streets are interconnected providing multiple paths for circulation
- Streets are designed to accommodate vehicular and bicycle traffic
- Planting strips create opportunities for street trees and/or green infrastructure
- Sidewalks encourage walking and provide a safe and alternative mode of transportation
- Trails through natural areas connect to the neighborhood at strategic points

- Shallow front yards can incorporate stone walls to work with topographic change
- Porches and stoops create semi-private space between sidewalk and building
- Streets, blocks, and buildings shift and undulate to work with the topography
- An integrated mixture of building types provides housing choice
- Changes in elevation and articulation create variety in the streetscape
- The Town Center Neighborhood connects directly with the Town Center











### PRECEDENT IMAGERY

Pg. 70, left to right, top to bottom: One-story townhouses provide single-level living opportunities. Single-family houses with a small footprint can maintain mature vegetation on the lot creating instant value. Residential buildings should step with topography and incorporate mountain town elements such as stone piers and foundations. Formal open spaces can be created to preserve mature vegetation or a unique stand of trees. Besides fronting streets, residential buildings may also front courtyards and pedestrian passages where topographic constraints prevent streets.

Pg. 71, left to right, top to bottom: For sites sloping down from the street, a front-loaded house and garage can be arranged to create a parking court. Buildings should front and frame formal open spaces. Porches help to create a transition between the building and the public realm along the street. Residential buildings can incorporate a variety of materials found in Walden and similar rural mountain towns, including board and batten siding as well as stone, brick, stucco, shakes, and lap siding. Trails should weave through residential areas for recreation and added connectivity.



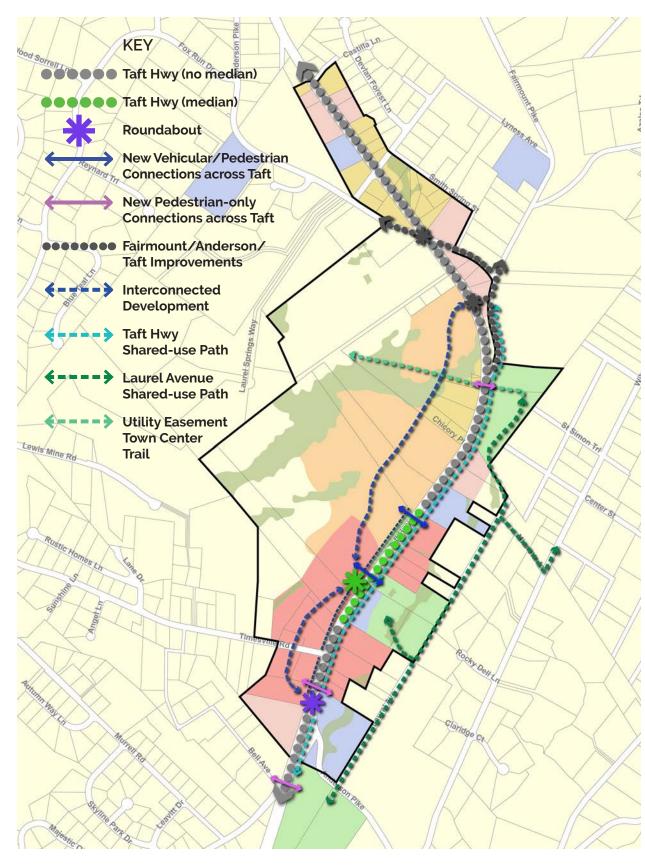








70 THE TOWN OF WALDEN PLAN
THE HEART OF WALDEN 71



MOBILITY CONCEPTS IN THE TAFT HIGHWAY FOCUS AREA

## KEY CONCEPTS • A CENTER FOR PEDESTRIANS, CYCLISTS, AS WELL AS CARS

Another key component in creating a village-like character in Walden's Town Center is designing streets for multiple modes of transportation. Narrowing lane widths, providing ample sidewalk width, encouraging on-street parking, placing utilities underground, and incorporating street trees are all important for creating new streets that are naturally traffic-calmed. There are other interventions, however, that can be equally important to make the entire transportation system within the Town Center work in a safer, more pleasant manner for all.

### Roundabout at Taft and Anderson

A roundabout at the Taft Highway and Anderson Pike (W Road) intersection could provide operational and safety benefits, particularly for vehicular traffic. Currently unsignalized, intersection queues and delays have increased, especially during peak hours. A lack of traffic control along the Taft Highway corridor, in general, reduces the available gaps in traffic for turning vehicles.

The Illustrative Plan depicts a conceptual design for a roundabout at the intersection of Taft Highway. While the precise location and design requires additional study, the concept illustrates how the roundabout can improve the operation of this key intersection, create an opportunity to connect Timesville Road (and the Town Center) to the intersection, and creates a gateway into Walden with a focal point for art or sculpture in the center. Below is an image of a roundabout in Nashville, TN.

Given heavy directional peak hour movements, a roundabout can provide additional efficiency and capacity beyond a traffic signal.

Beyond vehicular benefits, this intersection is a critical nexus for walking and bicycling connectivity given its location near McCoy Farm and Gardens, James Boulevard, and the Town Center. The new roundabout could incorporate safe crosswalks for adjoining sidewalk and shared use path infrastructure where traffic is being physically slowed and sightlines are optimized. Finally, Walden's Town Center Plan identified the construction of two gateway monuments along Taft Highway to physically distinguish where the Town Center begins and ends, one of which being located at the Anderson Pike (W Road) intersection. The roundabout could provide a prime opportunity for further enhancing this gateway from an aesthetic, built environment, and transportation perspective. Gaining control of the two properties currently for sale on the west side of Taft near the proposed roundabout could generate momentum.





**72** THE TOWN OF WALDEN PLAN THE HEART OF WALDEN **73** 

### Taft Highway in the Town Center

For the Town Center, the typical cross-section includes a landscaped median for the length of the frontage road. Widening the existing highway would be required to accommodate the median. Proper vehicular sightlines must be maintained if street trees are used, meaning trees should be strategically placed and/or pruned in accordance with TDOT roadway design standards. Median cuts would only occur at intersections with the incorporation of turn lanes at high-volume intersections.

A sidewalk is envisioned for the west side of Taft Highway, while the proposed shared use path would be largely located outside of the highway's right-of-way using an easement on the eastern side. Furthermore, the shared use path would, ideally, be located on the eastern side of the frontage road to provide maximum access, safety, and comfort for those walking and bicycling to nearby destinations. This location for the path minimizes the number of conflict points with vehicles to only driveway locations.



## TAFT HWY CONCEPTUAL IMPROVEMENTS

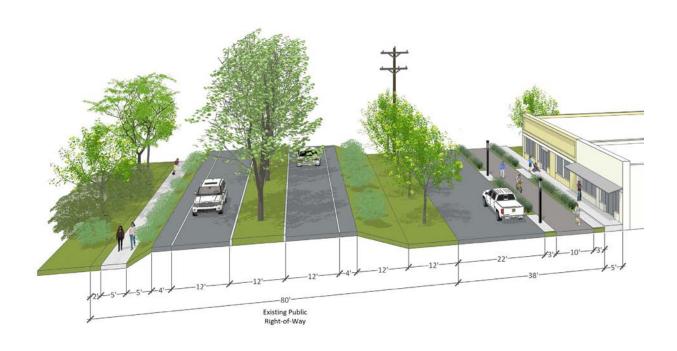
- A Shared-use path and parking on east side and sidewalk on west side
- Center median with trees from beginning of frontage road to Ace Hardware driveway
- Connect to Town Center Neighborhood across Taft at Ace Hardware driveway
- Connect to Town Center at Pumpkin Patch driveway (potential signal location)
- Improvements to frontage road include shared-use path and street trees



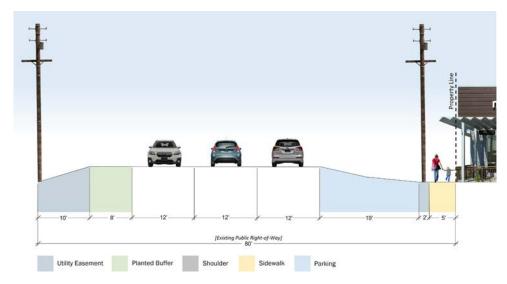
Precedent imagery of a shared-use path (Source: Rundell Ernstberger Associates, LLC. Pedestrian and Bicycle Information Center, 2021. www.pedbikeinfo.org



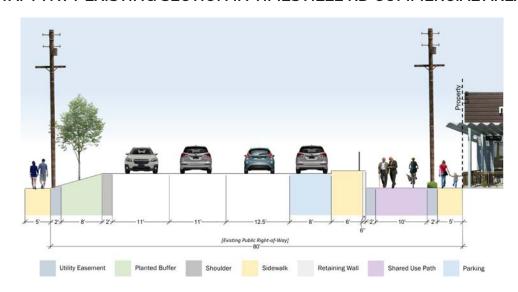
TAFT HWY EXISTING SECTION MODEL IN TOWN CENTER AREA



TAFT HWY CONCEPTUAL SECTION MODEL IN TOWN CENTER AREA



TAFT HWY EXISTING SECTION IN TIMESVILLE RD COMMERCIAL AREA



TAFT HWY CONCEPTUAL SECTION IN TIMESVILLE RD COMMERCIAL AREA

### Timesville Road Commercial Area

The existing commercial buildings at Timesville Road are built up to the Taft Highway right-of-way, which is indicated by the transmission pole. The paved shoulder has been used as striped on-street angled parking for these businesses. To better accommodate all roadway users in the existing Town Center, specifically the envisioned shared use path, the Taft Highway cross-section would need to be altered. The existing paved shoulder on the west side would need to be narrowed to accommodate a shift in the travel lanes, which also might require addi-

tional shoulder grading or pavement based on local conditions. Shifting the lanes would allow for some of the on-street parking to be maintained (i.e., parallel parking), while accommodating passenger unloading, the shared use path and required clear zones, and the existing sidewalk in front of the businesses. Bulb-outs with understory street trees are envisioned to break up the parallel parking spots. The sidewalk on the westside in this section is envisioned to be outside of the right-of-way.

### **Outside Town Center**

The proposed typical cross-section outside of the Town Center does not differ from the existing in terms of the roadway configuration. It is envisioned to stay as a two-lane roadway with twelve-foot travel lanes and four-foot shoulders with turn lanes provided at high-volume intersections. The shared use path would go on the east side within the existing right-of-way given the number of destinations located on this side of the highway. A 10' planted buffer would be provided between the edge of roadway and the shared use path, in accordance with TDOT roadway design standards.



TAFT HWY EXISTING SECTION OUTSIDE OF TOWN CENTER AREA



TAFT HWY CONCEPTUAL SECTION OUTSIDE OF TOWN CENTER AREA

76 THE TOWN OF WALDEN PLAN
THE HEART OF WALDEN 77



Illustrative Plan with interconnectivity highlighted between the proposed roundabout, through the center, and a potential Fairmount Pike realignment

### Fairmount/Anderson/Taft Improvements

The Fairmount Pike and Anderson Pike intersections with Taft Highway are currently skewed, limiting sightlines and increasing queues for turning vehicles. An intersection improvement project should be evaluated for increasing safety and operations at one or both of these intersections. Fairmount, in particular, has been experiencing increasing delays during peak hours. One concept would be to realign Fairmount to form a 90-degree orientation with Taft just north of the electrical substation. Should development occur on the west side of Taft, a new roadway to the Town Center could connect at the newly aligned Fairmount, potentially warranting a traffic signal. Challenges include the acquisition of right-of-way.

Another concept is to make Fairmount one way north from Taft to Anderson. Southbound traffic on Fairmount would be redirected to an improved intersection at Anderson Pike and Taft Highway. This concept could also potentially warrant a signal. Downsides include the need to address the skewness of this intersection and the missed opportunity to create a signalized intersection at a new street connecting to the Town Center. Furthermore, the intersection at Fairmount and Anderson would likely need to be reconfigured to accommodate turning large vehicles and vehicles pulling trailers. This would likely require the acquisition of right-of-way.

Additional study is necessary to determine the best solution that addresses vehicular traffic and best serves destinations to the north of the Town Center, including the Civic League and Bachman Community Center.

### Interconnected Development

Development in the Town Center will likely develop incrementally. It is crucial that developments along the west side of Taft be designed so they are interconnected. First, this creates an alternative, pedestrian-friendly, naturally-calmed connection between greater Walden and the Town Center, which reduces dependence on Taft Highway. Second, it creates a seamless transition between neighborhood and center instead of a succession of disconnected development.

### **KEY CONCEPTS · CIVIC SPACES**

A third key component to a vibrant Town Center beyond buildings and streets are civic spaces and facilities. Such spaces come in many shapes and sizes, but there are some key attributes of each. Civic spaces should be integrated into centers and neighborhoods, not formed from leftover open space. They should be framed by buildings and enfronted by streets or sidewalks where possible. Finally, they should provide usable outdoor space and, in some instances, incorporate techniques to mitigate stormwater runoff. The following is intended as guidance for the Town in reviewing civic space in a proposed development.

Illustrative Plan showing buildings fronting the Town Square (right). Precedent imagery for Town Squares illustrating formal landscaping, on-street parking options, civic art, interactive splash fountain, sidewalks and other features common to a central gathering space in the heart of a community (below and bottom)







### **Town Square**

The heart of the Town Center should feature a central, formal open space. In the concept showing in the Illustrative Plan, the Town Square is located on a high point. It includes streets on all sides and buildings with active ground floor uses to frame the space. The Town Square could incorporate an interactive feature such as a formal splash fountain, but not a spray park. Landscaping consists primarily of perimeter trees; however, it is advantageous to incorporate some mature trees within the space. If the square is built where shown, some level of grading will be required, limiting the ability to do that. Another benefit is that the alignment of this space with the Town Hall and Pumpkin Patch and the connection across Taft that can be improved with signalization.





### **Neighborhood Greens**

It is important to incorporate neighborhood greens in a variety of locations within a neighborhood. In the Illustrative Plan, several different types of greens have been shown: a long, linear green on the nose of a gentle ridge; a triangular green preserving an existing drainage pattern; several smaller greens framed by dwelling units and enfronted with sidewalks. The triangular green serves a dual purpose in that it is located along a key connector between Taft Highway to the north and the heart of the center to the south and helps to calm through traffic. Most of these spaces are formal, manicured areas for active or passive recreation, but in some instances, these spaces can simply be preserved because of a specific natural feature or grove of trees. Neighborhood greens are also an ideal location for playground equipment.

### **Passive Park**

The 1998 Town Center Plan recommended a passive park on Town-owned property on Taft Highway south of Fairmount Pike. Walden's Ridge Emergency Services owns a parcel directly to the south. This plan envisions the implementation of this passive park as another amenity for Walden. Instead of a formal, manicured space, this park would retain its natural character and include trails for hiking. These trails could connect the Laurel Avenue Trail to the shared-use path along Taft and even connect to a trail along the gas line easement if implemented. A small parking area would need to be provided that could be accessed from Fairmount Pike. The park could also serve as a location for a trail along the gas line easement to cross Taft either below via tunnel or possibly at a pedestrian signal.





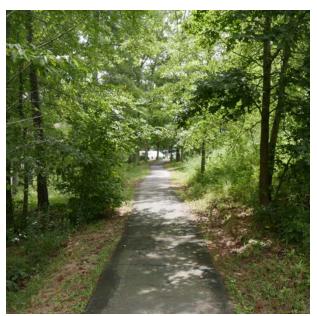




Illustrative Plan showing opportunities for neighborhood greens (top, left). Precedent imagery for neighborhood greens, which can be formal (above, middle) or informal (above). Illustrative Plan showing opportunity for passive park on Town-owned land around the gas easement

### **Trails**

This plan envisions that a large portion of development parcels will be preserved from development. While some of these areas contain extremely steep slopes or other environmentally sensitive features, like Middle Creek, they offer an opportunity to incorporate passive recreation through hiking trails. Beyond the health benefits, these trails would allow residents to experience portions of Walden in its natural state. Encouraging these trails is recommended.



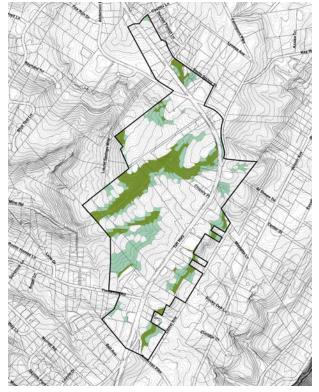


## KEY CONCEPTS · A SUSTAINABLE TOWN CENTER

Sustainability is discussed more broadly in Chapter 5, but it is important to draw attention to several key concepts for the proposed Town Center.

### **Steep Slopes**

During the charrette, the consultant team completed a cursory slope analysis of lands in the focus area. The study identified moderately steep slopes (15%-25%) and extremely steep slopes (25%+). It was conceptual, based on available data, but it was useful in defining areas to be wary of or preserve altogether. As stated in Chapter 5, this plan envisions updating development standards related to slopes. Development proposals should include geotechnical surveys and steep slope study based on topographic surveys, not GIS info, to inform the layout of the development and preserve these sensitive features.



Precedent imagery for trails through natural areas (top) and structures that can be placed near trailheads (above, left). Diagram illustrates analysis of moderate and extremely steep slopes based on GIS topographic data in the focus area (above, right).

80 THE TOWN OF WALDEN PLAN
THE HEART OF WALDEN 81



### Open space

The Illustrative Plan shows a substantial amount of open space preserved in the Town Center. A portion of this open space is due to extremely steep slopes but given infrastructure constraints and the rural mountain character of Walden, this plan envisions preserving land beyond that which is constrained to create an appropriate transition from the Town Center to surrounding private land. The proposed amount of preserved open space should be a minimum of 50% and may include environmentally constrained property. Development preserving a large amount of natural open space should be allowed to have a more compact development pattern and potentially a modest increase in overall density, as long as the development can be adequately served with infrastructure. Any updated regulations should consider the impact of this approach on smaller parcels.

### **Green Streets**

As described in Chapter 5, it is recommended that the Town adopt a stormwater ordinance that includes best management practices for stormwater runoff. Ideally, development proposals in the Town Center should include a variety of tools to collect and treat runoff that doesn't solely rely on large ponds. This should help to minimize grading.



Illustrative Plan highlighting preservation of more than 50% on large parcels and highly conceptual locations for wastewater treatment or stormwater management (above, left). Precedent imagery illustrates the interface between the natural and the built environment.

### RECOMMENDATIONS

## (0, 5, 20-YEAR TIMEFRAME)

### DO THIS NOW

- 6.1 To implement the concepts for the Town Center, update the VC-1 district or replace it with a new district that includes the following:
  - Review of appropriate land uses
  - Standards related to the layout of streets, blocks, and civic spaces
  - A minimum requirement for preserved natural open space
  - Building placement, height, and massing standards
  - Parking and access standards
  - Architectural standards
  - Landscaping standards
  - Signage standards
- 6.2 To implement the concepts of the Town Center neighborhood, create a new zoning district that includes the following:
  - Review of appropriate land uses
  - Standards related to the layout of streets, blocks, and civic spaces
  - A minimum requirement for preserved natural open space
  - Building placement, height, and massing standards
  - Parking and access standards
  - Basic architectural standards
  - Basic landscaping standards
- 6.3 Adopt a development review process that includes submittal materials necessary to adequately review development proposals for adherence to development standards and this Plan.
- 6.4 Request traffic control evaluations from TDOT for key intersections experiencing peak hour delays, including Taft Highway/ Anderson Pike and Taft Highway/Fairmount Pike. Begin discussion with TDOT Region staff regarding desire for potential roundabout and intersection realignment, as well as Taft Highway widening (i.e.,

- addition of landscaped median).

  Participate in the Chattanooga-H
- 6.5 Participate in the Chattanooga-Hamilton
  County/North Georgia Transportation
  Planning Organization's (TPO) plan development process for the 2050 Regional
  Transportation Plan. When they do a "call for projects", submit the Taft Highway project
- 6.6 Develop a strong working relationship with the Chattanooga-Hamilton County Regional Planning Agency (RPA) and express support for updating the Walden's Ridge Plateau Area Plan, which was last updated in 1997.

### DO THIS WITHIN 5 YEARS

- 6.7 Work with the Land Trust for Tennessee or similar organization to develop a plan to place preserved open space in permanent conservation easements.
- 6.8 Evaluate improvements to the intersections of Fairmount Pike, Anderson Road, and Taft Highway

### DO THIS WITHIN 20 YEARS

6.9 Revisit the revised standards in Walden's development regulations and update accordingly.

82 THE TOWN OF WALDEN PLAN THE HEART OF WALDEN 83



## [implementation matrix]

### **HOW TO USE THIS MATRIX**

This chapter lists all of the Recommendations from the previous chapters in a table along with useful information regarding time frame, responsible party, and potential funding sources. The time frames have been defined as short term (0-2 years), medium term (3-5 years), and long term (6-20 years). Responsible parties include the Town, meaning elected officials and appointed commissions, Hamilton County, the Chattanooga Hamilton County Regional Planning Agency (CHCRPA), the State, and other organizations. Funding sources are generally classified as follows:

Town: General Budget and Capital Improve-

ment Budget items

**Grants**: In particular, the State Departments of Commerce, Tourism Development, Transportation (TDOT), Environment and Conservation (TDEC), as well as, the Federal Government.

### THE IMPLEMENTATION COMMITTEE

It is recommended that the Land Use Committee act as an Implementation Committee for the plan and meet at least twice per year to review implementation efforts and set priorities. The Implementation Matrix in this chapter can and should be used as a checklist to measure prog-

Action No.	Action	Page No.	Time- frame	Responsible Party	Funding Source
2 WALDE	:N'S PLACES				
2.1	Adopt the Town of Walden Plan as the Town's official land use policy and use it to inform municipal decisions on develop- ment proposals.	22-30	Short	Town/CHCRPA	NA
2.2	Update the zoning ordinance and other development regulations to align with the land use policy recommendations for the Town Center Place Types in the Taft Highway Focus Area (see chapters 5 and 6 for more detail on specific zoning recommendations).	28-29	Short	Town	Town
2.3	Add a pre-application meeting requirement between a developer and Town officials.	21	Short	Town	NA
2.4	Consider conducting a housing and retail market analysis to forecast the market potential for various residential and retail uses.	21	Medium	Town	Town
2.5	Consider conducting a fiscal impact and benefit analysis of the policies in this plan.	21	Medium	Town/CHCRPA	Town
2.6	Create a new zoning district with site and building design standards to implement the Taft Highway Residential Place Type.	25	Medium	Town	Town
2.7	Update the site and building design standards for the C-1 zoning district to align with the Taft Highway Non-residential Place Type.	26	Medium	Town	Town
2.8	Review the land use policy in the Town of Walden Plan every five years and adjust it as needed to reflect changes in community preference, market conditions, infrastructure, or other factors that could affect the quality of life.	NA	Long	Town/CHCRPA	Town/CH- CRPA

Action No.	Action	Page No.	Time- frame	Responsible Party	Funding Source
3 WALDE	N'S TREASURES				
3.1	Complete a Wayfinding and Trail- head Signage Master Plan for the entire Town	38- 39	Short	Town	Town/Grants
3.2	Appoint the Parks Committee to serve as the steering committee for the Wayfinding and Trailhead Signage Master Plan	39	Short	Town	NA
3.3	Consult with mapping compa- nies (Google, Waze, Bing, Apple, etc.) and other app developers to revise routings as needed	39	Short	Town	Town
3.4	Add a dedicated page on the Town's website with information on key civic sites and links to their websites as possible	39	Short	Town	Town
3.5	Install "Private Property" trail signage in all locations where trails cross private property	37	Short	Town	Town/Grants
3.6	Identify problem areas along trails where visitors tend to leave the trail and install "Stay on Trail" signage	37	Short	Town	Town
3.7	Identify erosion issues along trails and install educational signage to discourage further damage	37	Short	Town	Town/Grants
3.8	Improve the parking area at Mabbitt Springs	26	Short	Town	Town/Grants
3.9	Construct a new trailhead at Mabbitt Springs and replace the pedestrian bridge	37	Short	Town	Town/Grants
3.10	Work with the state to improve the parking area at Falling Water Falls	26	Short	Town/State	Town/State
3.11	Work with the state to construct a new trailhead at Falling Water Falls	37	Short	Town/State	Town/State
3.12	Construct parking area for the Pumpkin Patch near the termi- nus of Laurel Avenue	26	Short	Town	Town

Action No.	Action	Page No.	Time- frame	Responsible Party	Funding Source
3 WALDE	N'S TREASURES (CONTINUED)				
3.13	Begin early-phase implementa- tion of the Wayfinding and Trail Signage Master Plan	38-39	Medium	Town	Town/Grants
3.14	Install trail maintenance donation meters at trailheads and other key sites	37	Medium	Town	Town
3.15	Complete implementation of the Wayfinding and Trail Signage Master Plan	38-39	Long	Town	Town/Grants
4 SAFELY	CONNECTING WALDEN FOR ALL				
4.1	Explore contracting with the Hamilton County Sheriff's Office for strategic speed enforcement.	47	Short	Town/County	Town
4.2	Consider passing a three-foot ordinance for both pedestrians and bicyclists. For pedestrians, if no sidewalk or shoulder exists, this would standardize the right for a pedestrian to walk on the edge of the roadway. A passing vehicle must provide the person with a minimum of three feet or must yield to the pedestrian until able to do so.	47	Short	Town	NA
4.3	Identify funding opportunities for implementing identified priorities, including exploring the possibility of a dedicated local funding source for construction.	NA	Short	Town	Town
4.4	Consider lowering the posted speed limit on local residential streets from 30 mph to 25 mph to provide greater consistency across the Plateau.	37	Short	Town	Town
4.5	Approach the Town of Signal Mountain regarding completing the sidewalk gaps along James Boulevard near McCoy Farm and Gardens. Consider a cost-sharing structure to construct.	45	Short	Town/Signal Mountain	Town/Signal Mountain/ Grants

Action No.	Action	Page No.	Time- frame	Responsible Party	Funding Source		
4 SAFELY	4 SAFELY CONNECTING WALDEN FOR ALL (CONTINUED)						
4.6	Evaluate traffic speeds and volumes as well as multimodal activity on the E. Brow Road. Implement appropriate traffic calming measures to support a safer shared street, such as signage and speed cushions.	47-49	Short	Town	Town		
4.7	Identify areas along shared streets where graded shoulders (grass or gravel) may be feasible to provide additional maneuvering and/or refuge space for non-motorized street users.	47-49	Short	Town	Town		
4.8	Install regulatory and warning signage along highly trafficked shared streets to improve driver awareness of the likely presence of non-motorized street users and to address on-street parking issues, including signage equipped with flashers to improve visibility during fog events. Special attention should be given at blind horizontal and vertical curves. Key candidate streets include East Brow Road, Chestnut Avenue, and Forest Park Drive.	47-49	Short	Town	Town		
4.9	Using wayfinding signage, direct northbound traffic traveling to Falling Water Falls State Natural Area on the W Road/Anderson Pike to use Wilson Avenue.	NA	Short	Town	Town/Grants		
4.10	Identify funds and implement a shared street on Laurel Avenue, including a crosswalk at Laurel Avenue and Anderson Pike, until a shared-use path can be constructed. Construct connector trails on the Pumpkin Patch and McCoy properties.	43	Short	Town	Town/Grants		
4.11	Monitor the outcomes of the envisioned TDOT feasibility study for constructing a Timesville Road-Shackleford Ridge Road connector.	NA	Short	Town	NA		

Action No.	Action	Page No.	Time- frame	Responsible Party	Funding Source
4 SAFELY	CONNECTING WALDEN FOR ALL (CO	ONTINU	JED)		
4.12	Use the Roads and Safety Committee to identify which shared streets should be a priority for near-term implementation.	46	Short	Town	NA
4.13	Continue to pursue TDOT's Multimodal Access Grant for constructing the envisioned shared use path along Taft Highway.	43	Short	Town	TDOT
4.14	Participate in the TPO's Technical Coordinating Committee (TCC) and/or TPO Board to actively participate in long-range transportation planning and policy efforts in the region.	NA	Short	Town	NA
4.15	Identify critical locations in need of vegetation pruning and/or removal within the public right-ofway to improve sightlines along well-traveled pedestrian and bicycling routes, particularly those frequented by visitors. Clearance may also provide additional maneuvering and/or refuge space for pedestrians in areas along certain shared streets, such as Chestnut Avenue.	NA	Short	Town	Town
4.16	Evaluate near- and long-term solutions for improving safety and circulation at the W Road, East Brow Road, and Anderson Pike intersection.	49	Short	Town	Town
4.17	Coordinate with TDOT to monitor when Taft Highway is expected to be repaved. Identify locations where crosswalks are preferred for installation, if possible.	NA	Medium	Town/TDOT	TDOT
4.18	Explore the legality of utilizing Town of Walden right-of-way for potential trail development and evaluate resident support for offroad connections.	43	Medium	Town	NA

Action No.	Action	Page No.	Time- frame	Responsible Party	Funding Source
4 SAFELY	CONNECTING WALDEN FOR ALL (CO	JNITNC	JED)		
4.19	Approach the East Tennessee Natural Gas Company to eval- uate the feasibility of trail de- velopment within their gas line easement.	43	Medium	Town/East Tennessee Natural Gas Company	Town
4.20	Complete a follow-up evaluation of roadways where traffic calming was applied to measure the level of success. Identify additional measures as needed, as well as other streets that might benefit from such measures.	NA	Medium	Town	Town
4.21	Evaluate the feasibility of a direct walking and bicycling connection into the new Walden's Ridge Park.	43	Medium	Town	Town
4.22	Identify short, low-stress con- nections that would extend walking and bicycling connec- tivity in the community, such as between Parsons Lane and the Wayside Presbyterian Church.	45	Medium	Town	Town
4.23	Evaluate improvements to the intersections of Fairmount Pike, Anderson Pike, and Taft Highway	78	Medium	Town/TDOT	Town/TDOT
4.24	Consider developing a pedestri- an, bicycle, and greenway master plan, parks plan, or comprehen- sive transportation plan for the community.	NA	Medium	Town	Town
4.25	Identify a long-term speed enforcement strategy.	NA	Medium	Town	Town
4.26	Monitor the completion of the proposed Cumberland Trail segment north of Walden, envisioned to cross Taft Highway in Sequatchie County, to identify potential connections and opportunities to capture hikers passing through.	NA	Long	Town	NA
4.27	Explore pursuing the bicycle-friendly community designation from the League of American Bicyclists.	NA	Long	Town	Town

Action No.	Action	Page No.	Time- frame	Responsible Party	Funding Source
4 SAFELY	CONNECTING WALDEN FOR ALL (CO	UNITNC	JED)		
4.28	Establish the proposed passive park at Taft Highway and Fairmount Pike.	80	Long	Town/County	Town/County
4.29	Monitor the development and official designation of the proposed U.S. Bike Route (USBR) 121 in the Chattanooga region to potentially route through Walden.	NA	Long	Town	NA
5 A SUSTA	AINABLE AND RESILIENT WALDEN				
5.1	Adopt supplemental standards to provide more guidance for protecting steep slopes from significant development	54	Short	Town	Town
5.2	Adopt stormwater management standards for the Taft Highway Focus Area that incorporate location-specific Light Imprint stormwater techniques to miti- gate runoff	54	Short	Town	Town
5.3	Adopt lighting standards for non-residential and Town Center development	56	Short	Town	Town
5.4	Conduct a study to determine the effectiveness of a decentralized wastewater treatment system for development within the Town Center	55	Short	Town	Town
5.5	Work with Signal Mountain, Hamilton County, and Sequatchie County to develop a comprehen- sive sewer strategy for Walden and the region	55	Short	Town/Ham- ilton and Sequatchie Counties	Town/Ham- ilton and Sequatchie Counties
5.6	Continue to support the Save the Hemlocks Campaign	55	Short	Town	Town
5.7	Hire the services of a geologist to explore the coal seam and related issues	55	Short	Town	Town
5.8	Adopt tree preservation and replacement standards in areas where growth is planned to occur, such as along Taft Highway	54	Medium	Town	Town

Action No.	Action	Page No.	Time- frame	Responsible Party	Funding Source
5 A SUST	TAINABLE AND RESILIENT WALDEN (C	CONTIN	UED)		
5.9	Work with TDEC's Land Reclamation Section to identify potential abandoned mine reclamation projects, which can be added to the Abandoned Mine Land Program	57	Long	Town/TDEC	Town/TDEC
5.10	Begin implementation of the comprehensive sewer strategy	55	Long	Town/Ham- ilton and Sequatchie Counties	Town/Ham- ilton and Sequatchie Counties
6 THE H	EART OF WALDEN				
6.1	To implement the concepts for the Town Center, update the VC-1 district or replace it with a new district that includes the following:  • Review of appropriate land uses  • Standards related to the layout of streets, blocks, and civic spaces  • A minimum requirement for preserved natural open space  • Building placement, height, and massing standards  • Parking and access standards  • Architectural standards  • Landscaping standards  • Signage standards	60-65, 79-82	Short	Town	Town
6.2	To implement the concepts of the Town Center neighborhood, create a new zoning district that includes the following:  Review of appropriate land uses  Standards related to the layout of streets, blocks, and civic spaces  A minimum requirement for preserved natural open space  Building placement, height, and massing standards  Parking and access standards  Basic architectural standards  Basic landscaping standards	66-71, 79-82	Short	Town	Town

92 THE TOWN OF WALDEN PLAN IMPLEMENTATION MATRIX 93

Action No.	Action	Page No.	Time- frame	Responsible Party	Funding Source
6 THE HE	ART OF WALDEN (CONTINUED)	ı			
6.3	Adopt a development review process that includes submittal materials necessary to adequately review development proposals for adherence to development standards and this Plan.	NA	Short	Town	Town
6.4	Request traffic control evaluations from TDOT for key intersections experiencing peak hour delays, including Taft Highway/ Anderson Pike and Taft Highway/Fairmount Pike. Begin discussion with TDOT Region staff regarding desire for potential roundabout and intersection realignment, as well as Taft Highway widening (i.e., addition of landscaped median).	72-78	Short	Town/TDOT	Town/TDOT
6.5	Participate in the Chattanoo- ga-Hamilton County/North Georgia Transportation Planning Organization's (TPO) plan de- velopment process for the 2050 Regional Transportation Plan. When they do a "call for projects", submit the Taft Highway project.	NA	Short	Town/County	NA
6.6	Develop a strong working relationship with the Chattanooga-Hamilton County Regional Planning Agency (RPA) and express support for updating the Walden's Ridge Plateau Area Plan, which was last updated in 1997.	NA	Short	Town/CHCRPA	NA
6.7	Work with the Land Trust for Tennessee or similar organiza- tion to develop a plan to place preserved open space in perma- nent conservation easements.	82	Medium	Town	Town
6.8	Evaluate improvements to the intersections of Fairmount Pike, Anderson Road, and Taft Highway	78	Medium	Town/TDOT	Town/TDOT

Action No.	Action	Page No.	Time- frame	Responsible Party	Funding Source
6 THE HE	ART OF WALDEN (CONTINUED)				
6.9	Revisit the revised standards in Walden's development regulations and update accordingly.	NA	Long	Town	Town

94 THE TOWN OF WALDEN PLAN

IMPLEMENTATION MATRIX 95



## [ public input record ]

As explained in Chapter 1, the public engagement process included multiple opportunities to provide input in the process. Early on, a series of focus group interviews were conducted. In May, an intense public brainstorming session called a "charrette" was held. At the beginning of the charrette, the public participated in a series of interactive exercises organized by topic, or station. After the draft plan was presented, the Town posted the plan on its website and collected comments from the public for a month. Notes and images from this effort are included here for reference.



April 5, 2021

To: Steven Bush, Angela Cassidy, Andrew Hausler, Sarah McKenzie, Dawson Wheeler

Re: Focus Group Meeting Summary

The following is a summary of the Focus Group Meetings held on March 29th and 30th.

### Focus Group Meeting #1: Non-profits

Melissa—McCoy Farm
Chad—Land Trust for Tennessee
Luke—Land Trust for Tennessee
Karen—McCoy Farm/Civic League

### 1997 Plans

- Karen was involved. Met every Friday for 5 years to do the zoning code which is why some are so upset.
- "The Walden Look" Phil Walker. Bread Basket, Ace followed the Walden look.
   Unsure if ever adopted. (Karen)
- Spent a lot of time on the zoning changes after the 1997 plan

### 5-10-20 years - how has Walden changed?

- Very very little. Pop density a little greater. Newer younger families moving in.
   These people do not know necessarily know about the previous plans.
- 5<sup>th</sup>/6<sup>th</sup> generation of original families living here.
- Residents are willing to work and be involved in the communities. Young people
  don't recognize that the town has already been planned out, visions have been
  outlined, rules set up, etc.
- Little has changed except for population
- 2 acre minimum lots have kept development from Walden

### What do you envision for next 20 years?

- Excited about connectivity possibilities
- I recreate up there a lot. Need trail connectivity. It's incredible on the Plateau.
- o Green Gulley, Cumberland Trail into Prentice Cooper.
- Fantastic outdoor community with the amount of resources there. Can leave your front door and be on a trail. Unmatched, really.
- Walden will be a Cumberland Trail town. It will essentially run right through town.
- W Rd at bottom, park with Mtn Bike Trails (Walden Ridge Park) coming. Will
  either be Hamilton County property or City of Chattanooga. Land Trust will hold
  an easement over it, so it can only be used as a park. Will be completed later this
  Fall.
  - o Working with Mayor Lee for direct connectivity down to the park.
  - Construction underway.
- Trail protection will be important. How do you access these areas? Covid exacerbated the need for this given significant increases in use.

### page 1 of 18

135 2<sup>nd</sup> avenue no. 3 | franklin, tennessee 37064 | tel 615.678.8640 | commongrounddesign.com



- Mayor Lee Davis he's a dedicated historian. Tying history with the future should be an important part of the effort.
- Land between Mabbit and Falling Water Falls its private property, they are building fires, cutting flowers, etc.
- We want connectivity but where its legal.
- Many trespassing issues
- Lots of concern about connectivity through private property
- Everybody wants connectivity. But make sure it's not on private property or that's its done <u>with permission</u>.
- North of Lyness Ave across from Civic League -> triangle prop. People who own it allow people to walk there.
- Desire to have a path down to Summertown from Civic League down Key Hulse, Wilson, to Summer Brook. Parsons Lane opportunity to take you down to Wilson?
- Basic education about the trails is an opportunity in the future such as, is
  parking allowed? How many spaces are there? Desire to remain a community
  park? How do you get the information out? Need to set use parameters. A lot of
  out of towners (out of state) come to the Mtn. The word's out. Rainbow Lake in
  Signal Mtn deals with use issues, too.
- Mayor has formed a group Parks and ROW Committee, wayfinding part of their effort.
- Started looking at signage because of McCoy. We are starting on a plan.
   Presume the Town Website would be the central point of contact
- Connectivity is good, but through private property is an issue/concern

### Role of your organizations? What should their role be in the future of the Town?

### McCoy

- o Our Board is really excited about the connectivity part of it.
- McCoy is the jewel of Walden. Dozens of people visit daily. It's the heart of Walden's public space.
- Bachmann Property
  - Civic League and Bachmann are similar in ways. We each have a building with an auditorium with public space, playground around it, etc.
  - o Civic League started the former school.
  - Bachmann has a board, did a great job renovating the building. Have a money maker with the clothes store for income. People do like it but it does seem to be off everyones everyday route (vs McCoy).
- Civic League the bldg. is old (Mt Opry->they are defunct now), off the beaten path. Wonderful new board of neighbors who care. We are more of farming people, rural people
  - Direct path down to Mabbit Springs. We hope to get people biking from Civic League or McCoy to Civic League.
- Comment on Little Brown Church
  - It's not a hiking spot or a spot for recreation. It's a church and extremely vulnerable (not locked, no one's monitoring it). We don't even put the address on the website for fear of what could happen to it. 400 come on to worship on Sunday. Popularity is already too much.

### page 2 of 18

135 2<sup>nd</sup> avenue no. 3 | franklin, tennessee 37064 | tel 615.678.8640 | commongrounddesign.com



- · Do the community orgs work together?
  - It is a goal of ours. On Walden Ridge Park yes, lots. A lot of the low-hanging conservation fruit has been done, so now its large projects only so we are trying to build partnerships.

### Village Center

- Town invited that village concept. It was a new idea in late 90s. We put a ton of effort into this. We were picturing what they have in Ooltewah. Grocery store is fine, nice restaurant, bank, etc. ok. It's more about how it develops. We did charettes endlessly. Everyone was so enthusiastic. It wasn't just 10 people. Some of the community felt betrayed as to why they didn't follow the plan. We had even considered a bridge over the highway in front of Town Hall.
- Village center ok. It's about what it looks like, how they do it.
- Lyons family. Orchard, 4 generations. Asked to be in Walden so he could contribute his tax money to the Town.
- In the 1997 Town Center Plan the center was more in front of Town Hall.
- We all recognize that its commercial. That there's kudzu. Gas station on top of old coal mine doesn't make sense, though
- Environmental concerns. Plateau is a unique environment. Number of homes, amount of infrastructure – for sure needs to be considered. Certainly, should be doing our due diligence from a conservation standpoint. Does the development work?
- Taft Hwy There's a bend its turning around a bowl in the topo. Taft development will impact Middle Creek at the bottom.
- Middle Creek is beautiful. Beautiful blue holes. Important for drainage.
- People haven't built down there (bottom of Timesville Rd) because of the topography, water runoff.
- Walden invented the idea of village center
- Ootelwah development nice
- · Approved development replaced our plan with a big parking lot
- · Lyons would roll over in his grave if this happens

page 3 of 18

135 2<sup>nd</sup> avenue no. 3 | franklin, tennessee 37064 | tel 615.678.8640 | commongrounddesign.com



### Focus Group Meeting #2: Connectivity/Mobility

Kristin Allen Kirby Johnson

### 1997 Plans

- Wasn't involved although grew up there. Lived on ridge for many many years.
   Have been involved as a citizen. Interested in the LU and development.
- Moved here around 2016 from Atlanta. Newer to the Mtn.

### 5-10-20 years - how has Walden changed?

- Not as much a small, rural, quiet community
- Signal Mtn had the amenities, businesses and Walden was the woodsy cousin
- Walden doesn't have a ton of neighborhoods
- Addition of high school changed everything—more people moved here
- · 2 acre minimum has helped to control development
- Lots of truck traffic—construction traffic
- Limited police presence
- Used to have own Police Dpt. (2 cops). Knew everybody
- Hamilton Co Sheriff now don't have as much patrolling. With growth and construction, people come to take advantage.
- Signal Mt. helps with police calls because only one deputy serves the ridge
- Transient traffic → Little Brown Church, trail systems
- Seeing pass through traffic now. Significant safety issues. A little shocked about the fact that Ivory isn't on here (Mabbit Springs)
- Sacrificing our tax dollars as dollars go elsewhere. We could inadvertently have to
  increase property tax to meet our needs. Quality development might be the way
  to go that our community can buy into.
- Families moving with young kids.
- Pressure on our schools, roads, amenities. Worried about unintended consequences.
- · Walden has natural assets and have been advertised
- 15-20 cars at Falling Water Falls
- Want to keep the charm of Walden, the woodsy quieter side of Signal Mtn.
- Division is about the balance of growth to not have to raise property taxes significantly.
- If could address parking, speeding, and some of the more transient nature of the people there, then people would probably be okay with visitors at FWF
- Speeding on Ivory, Chestnut, Forest Park Road if could address this, this is huge.
- · Enforcement of standard trail rules.
- Better gateway treatments to better define neighborhood roadways?
- Got rid of police department ~2002ish—better security would help
- Used to be stickers for residents (Walden, Lookout Mtn) so, police would know who is a local and not
- Lookout Mtn there's a gateway with Branding of the Lookout Mtn community that matches car stickers.

page 4 of 18

135 2<sup>nd</sup> avenue no. 3 | franklin, tennessee 37064 | tel 615.678.8640 | commongrounddesign.com



- Could they contract with Signal Mtn police for security?
- Plateau has become known as opportunity for crime because of the accessibility, no police
- There are no gated communities in Walden.
- We know have neighborhood watch in our neighborhoods (KJ)
- Need Neighborhood Ambassadors willing to do Neighborhood Watch campaigns.
   Local safety officer of sorts.
- Awareness campaign that we are not the Walden 30 years ago. We must do
  everything in our control to not generate crime issues.
- Not really an established media presence yet.

### Connectivity/Mobility

- Other streets or roads, for better connectivity between different assets?
  - o Brow Road
  - o Wilson Rd
  - Fairmount at Taft people walk here and then turn down Key Hulse Rd.
     Near the Civic League.
  - o Lake Avenue E Brow a lot of speeding. Spring -> little brown church
  - o Key Hulse Rd Christian School
  - Miles
- \*\*Worth conversating on connectivity with Signal Mtn and the back of the Mtn.
- · Residents from elsewhere use our amenities.
- James at Taft McCoy very difficult to get across Taft.
- Parking has always been an issue at the Pumpkin Patch.
- Monetize access points or parking?
- Bachmann very underutilized. It's a beautiful building. Needs to be a place. Coworking spaces?
- Grocery store the crux of the political climate. Resistance to change.
- A lot of differing opinions.
- Connectivity between Summertown and the Brow is important
- Ivory and Chestnut were repaved and restriped, but need it again because striping encourages fast traffic
- There is bad fog on the mountain so middle reflectors are useful
- Outside visitors are fine if you can address speeding along Ivory, Chestnut, and Forest Park
- Used to have vehicle stickers that identified Walden residents
- Need to contract with Signal Mt. for security
- There needs to be a branding effort for the town
- Need neighborhood ambassadors
- It is not the Walden of 30 years ago
- Walden is changing
- Interconnectivity with Signal Mt. and back of mountain
- Improved crossing to McCoy

### Village Center

- · Parking is an issue at the Pumpkin Patch
- · Look into monetization of some parking

### page 5 of 18

135 2<sup>nd</sup> avenue no. 3 | franklin, tennessee 37064 | tel 615.678.8640 | commongrounddesign.com



- The development project is probably coming to fruition
- · Grocery can be part of the center
- More restaurants would be ideal—breakfast, lunch, and dinner—so you don't have go off the mountain
- The idea of a "Food City" might have given development a negative stigma
- It would be great to have guidance on how to achieve grant funding
- · Need to hold developer accountable.
  - Verbiage around a strip mall.
  - Rossville Blvd. Don't want to be this.
- Needs to be socially relevant to our demographics. K-12. Early 30s. Up to aging population.

page 6 of 18

135 2<sup>nd</sup> avenue no. 3 | franklin, tennessee 37064 | tel 615.678.8640 | commongrounddesign.com



### Focus Group Meeting #3: Neighborhoods

Barby Wilson Kirby Johnson Gary Smith Gary Fiser

### 1997 Plans

Wasn't involved

5-10-20 years - how has Walden changed?

- Taft Highway traffic has grown
  - Turning left onto Highway is getting more difficult. Might need a signal.
     Which was a concern for Timesville Rd
- Taft Highway corridor looks rundown and tired
- · Looks like people don't care anymore
- We have lost our focus so am excited we are doing this
- Hard to separate Signal Mtn from Walden to me. Same is occurring there.
- Property maintenance issues
  - o empty unmaintained commercial space
  - Empty gas station with buses
  - church for sale forever, etc.
  - o Litter, trash
- Big change with addition of Ace Hardware
- Commercial is limited
- Connectivity to Bachmann may be tough because of heavy traffic on Anderson Pike
- There are unintended consequences of connectivity related to trespassing on private property

Biggest challenges facing the neighborhoods/Walden?

- Remarkable growth in the traffic and the number of houses going up everywhere
- Want to maintain the small-town, neighborhood environment and to keep it clean
- · Assets becoming destinations for people off the mountain as well as on
- Experienced a lot of bicycling—enjoy seeing that—that's the draw for Walden, these destinations
- Bicycling is more prevalent—it's dangerous for bikers on Taft
- Transient population not just those coming to McCoy
  - It's the construction trucks and workers—they have been behind the traffic and trash
  - W Rd clean up—Amt of trash was phenomenal from a lot of people that don't live on the plateau
  - o Our community routinely comes together to address community issues.
- Maintenance plan needed for trails

### Connectivity/Mobility

- · Walkable, bikeable neighborhoods because of sidewalks
- Plans to connect to a park at the base of the Plateau

page 7 of 18

135 2<sup>nd</sup> avenue no. 3 | franklin, tennessee 37064 | tel 615.678.8640 | commongrounddesign.com



- It's easier to improve connectivity between some of the destinations between others
  - o McCoy to Pumpkin Patch via Laurel Avenue
- Most important destinations to be connected?
- · Bachmann hard to connect to because of traffic on that road
- Does connection have to be physical? Can it be on a website?

### Village Center

- There are pros and cons
- Lookout Mt. center is appropriate for LM
- Village center needs to be appropriate to Walden
- Must be mindful of stormwater runoff and septic overflow
- On-site treatment is required
- Light pollution from any village center is a concern
  - o Dark Skies Committee we are starting with McCoy Property
  - o Multidirectional lights there are an issue
  - o Working with EPD and the Mayor.
  - o I think we need to have some light guidelines on development.
  - Myrtle beach all low light as an example
- Don't want a Rossville Boulevard character
- Like to see things tied together and feel like Walden
- There were 6 town center criteria—the grocery story does not contain any of these
- Want to know how they are going to handle the waste
- Timesville Rd up to curve lots of topography issues—it's a coal mine area
- Only place that seems to be big enough to develop is that parcel at Timesville Rd, Mine Rd, old mine shaft
- There will be development of the site regardless of what it is
- · Could be onsite water treatment facilities
- No matter what happens, it needs to be developed properly according to the context of the site.
- Whatever it is, I despise light pollution. I think its already too severe.
- Don't allow developers to drive the discussion
  - o Needs to be driven by the town and the residents
  - We shouldn't cave into developers
  - o This plan will give us direction and something to stand behind.
- Woodlands in TX
  - o Code-wise consider setbacks for sound and light
  - o Can make development contextually-appropriate
  - o Like the sameness for community character
  - Uniformly look and feel like Walden, and not like Signal Mtn. (flat faced rock) distinctly from them.
- Pruett's, Hummingbird, Country Club where we see all of our friends but these are in Signal
- We need sustainable but relevant options that complement price wise or offering wise compared to rest of the Plateau

page 8 of 18

135 2<sup>nd</sup> avenue no. 3 | franklin, tennessee 37064 | tel 615.678.8640 | commongrounddesign.com



 We need to create a unique multigenerational brand for the Town. Brand statement and aesthetic would help us make more meaningful public spaces.

page 9 of 18

135 2<sup>nd</sup> avenue no. 3 | franklin, tennessee 37064 | tel 615.678.8640 | commongrounddesign.com



### Focus Group Meeting #4: Taft Corridor North

No attendees

### Focus Group Meeting #5: Government Agencies

Chip Baker (County Commissioner)
Boyd Veal (Signal Mt. Town Administrator)
Andrea Noel (TDOT)
Rachel Bergmann (TDOT)
Karen Hundt (RPA)
\*All but Rachel live on the mountain

### Working Relationship

- Signal Mt. very glad Walden reached out
- Relationship between agencies/municipalities is generally good
- There is some tension over Signal Mt. police support of Hamilton County sheriff
- Signal Mt. and Walden have cooperated—like helping with grant for Dog Park
- Seamless transition between Signal and the County? Yes, definitely working together
- Signal Mt. providing mutual aid to the Sheriff
  - We do get attention that they are using our services.
  - It's mutually beneficial—we assist them on a daily basis and they assist us (Sheriff)
- We are a mountain top community (Signal, Walden, County)—it's everyone kids
- Signal use of Walden facilities? Not really, but we have our own facilities (parks, open areas, etc.)
  - o We have a facility similar Bachmann (Mtn Arts Comm Center)
  - o Hasn't been a need for Signal to utilize those types of facilities
- Land strapped for Rec Fields on the Mtn

### 1997 Plans

- RPA staff were involved in the 1997 effort
- The 1997 plan had good ideas that weren't implemented
  - o Taft widening, sewer extensions
  - Good to update it and reevaluate
- The Timesville/Shackleford connection study has been funded by TDOT but not completed

### 5-10-20 years - how has Walden changed?

- Residential growth is biggest change
- Must manage growth and maintain character
- A few things have been added (fire Station, Bread Basket)
- If you go off Taft, then quite a bit has changed
  - o Residential growth significant and the High School fueled it
  - o Rate of growth has increased since that
- 2-acre residential requirement in Walden which has forced growth outward
  - o Greatest opportunity is in the unincorporated part
  - o Unincorporated County is outpacing Signal and certainly Walden.

### page 10 of 18

135  $2^{\text{nd}}$  avenue no. 3 | franklin, tennessee 37064 | tel 615.678.8640 | commongrounddesign.com



- Signal Mt. has some remaining large tracts on the north end
- · There are still infill lots that exist
- Definitely have space for larger developments
- Wild Ridge subdivision is new since it was proposed. Majority of the build out has yet to happen.
  - o Using new tech system on Shackleford area. Self-contained sewer system (like a package plant). Part of WDTA system but the developer built it.

### Challenges to Growth

- Residential growth will outpace the commercial growth on the mountain and always will
- · Two sewer options for WWTA
  - o Upgrade the treatment plant at the foot of the mountain
  - o Divert to Moccasin Bend treatment plant
- There is no moratorium on development, just on connections to the sewer
- Depends on what perspective you have—from Signal's perspective—challenge is how to manage the growth and maintain the character and personalities of the communities
- Don't let it ultimately change what these communities are
- Sewer not happening. So much need. Study was done (WWDA?) to see about using Moccasin Bend's capacity (making it more efficient)
- Next Mayor will move the discussion forward.
- Also approaching a consent decree that will address what has to be done to address the system
  - o Improving the treatment plant at the bottom of the mountain
  - o New management reevaluating the existing treatment plant
  - o It's not a pump station—it's its own facility.
  - 2 options-next few months-will have a solid blueprint for what needs to be done
- Once moratorium is lifted and sewer connections are possible, people will
  automatically think new homes—but hope the growth of the sewer system will go
  to servicing already existing areas that are on septic (vs supplying new growth)
- Extending into sensitive areas is not a good idea for the environment.
- A lot of retro work that needs to be done before new work can happen.
- County development is all septic
- Not sure about step system but across the County seeing lots of smaller lots (to make the #'s work)
- Still seeing a lot of development in areas with existing sewer

### Village Center

- Lots of retail/restaurants come and go
- · Have to consider what's happening to retail across the country
- · Focus on what we have and make it better-maybe go vertical and not horizontal
- There are opportunities for residential development on the corridor that could support a village center
- · The center could be off the corridor
- Taft is extremely important

### page 11 of 18

135 2<sup>nd</sup> avenue no. 3 | franklin, tennessee 37064 | tel 615.678.8640 | commongrounddesign.com



- Town Center could be off Taft so that traffic isn't impacted.
- TDOT's main goal is to keep traffic moving bc this is a major thoroughfare.
- Walden has a village center feel
- Density is not there enough to promote walking
- · You must ask who is going to be using the center
  - o People that live near Pumpkin Patch don't have kids
- Maybe change zoning to allow for residential
- · Connecting McCoy from James Blvd. is tough
  - Have looked more internally within Town—had two grants to connect from James through Signal Mt. Town complex over to Taft with a pedestrian crossing and then a bike/pedestrian path through Taft Corridor—this was our approach to connect to Walden
  - Walden applied to pick it up at the Town Line and take it to the Pumpkin Patch
  - Signal Mt. rolled the grant funds into a larger sidewalk project in the old town center because of the timing of the project
- The gas easement through Fox Run in Walden could be an opportunity for a greenway/trail that connects neighborhoods west of Taft to east of Taft
  - o Kids already use the gas line easement, they ride their bikes, play there
  - o Not sure if existing properties would be open to it
- Pedestrian traffic along Taft primarily in Summer, kids coming from Town Center down to the shopping center.

page 12 of 18

135 2<sup>nd</sup> avenue no. 3 | franklin, tennessee 37064 | tel 615.678.8640 | commongrounddesign.com



### Focus Group Meeting #6: Conservation

Mariah Prescott Tal Cohen Mary Beth Sutton

\*All are on the Walden Parks and Recreation Committee

### 1997 Plans

Wasn't involved

5-10-20 years – how has Walden changed?

- Length of time it takes to turn out onto highway.
- Traffic—there are a lot of cyclists that are on Taft, W Rd, and lots of roads throughout
- Not safe, especially with number of big trucks
- Traffic issues at Key Hulse and Anderson Pike
- Lots of cyclists—doesn't seem safe
  - Forest Park speed very difficult.
  - We need Bike lanes, ped lanes
- Answer is not to keep them from coming but give them more options.
  More litter on roads
- o litter problem is along the highways not trails
- There aren't a lot of trash cans around town
- Pumpkin Patch and McCoy Farm have been upgraded and that is good!
- More people parked at Pruitts, ton of people there—now it has become a center, people there all the time
- Pruitts crowd more residential growth, construction workers—some carpool from there
- Stormwater is a huge issue—flooding issues because creeks rise and fall quickly
   Mabbit Springs is eroding
- We have sewage in our streams from all of the septic systems.

### Connectivity/Mobility

- Tal main goal early on develop a community map with the parks and hiking trails, then leverage that to decide where we want to focus on. Only have had a few meetings.
- There is more traffic on trails
- Need to develop a map w/ parks and trails
- Need signage at trails
- Need to address parking at trails
- There are more walkers/bikers and traffic is fast
- Connectivity is great
- · Stormwater is a big issue—clearing of plants increasing erosion
- Conservation
  - o Increased foot traffic leads to sediment
- Construction has increased runoff
- More people parked at Pruett's—construction trucks
- Need bike lanes/pedestrian lanes

### page 13 of 18

135 2<sup>nd</sup> avenue no. 3 | franklin, tennessee 37064 | tel 615.678.8640 | commongrounddesign.com



### Challenges to growth

- There is an environmental education opportunity
- Stormwater is a huge issue. Flooding issues bc creeks rise and fall quickly. Mabbit Springs is eroding.
- We have sewage in our streams from all of the septic systems.
- Lots of invasive species—need to hold regular "weed wrangles"
- There is 1 ac. parcel off Wilson near Key that is owned by Town and could be used for parking
- Must balance parking/trails/people
- Mabitt Springs is a pocket park, but Falling Water is a state park
- Sediment Load in Streams-Mabbit-increased foot traffic in water that is not being funneled properly so sediment is increasingly

### Connectivity/Mobility

- Since there is increased traffic with more people enjoying public spaces, need to take advantage of this exposure for education on environmental issues
- Utilize gas line easement as a trail
  - o Contacted gas company but no return call yet
  - It was a thoroughfare for ATVs and goes all the way to Nolan, near the schools—but does go through a lot of property.
- Looking at ROWs not being used to serve as the connectors
  - o Quite a few that are really great
  - o Laurel Avenue connection—Town already owns it
  - o Would like to connect into the potential gas line
  - o End of Northern Ave goes down to Wilson—it's ROW, not a road
    - Landowner requested to close it but cancelled it
    - ROW goes into woods
    - Met with him with a proposed ordinance of closing to vehicles forever and leaving open to nonmotorized
    - He was not for it--was more concerned about vehicles coming up there
    - People already walk on it. He has given them 'permission'
    - First section heading NE turns to dirt road to gravel. Turns off into the woods
- Connection-just better community connection
- Mabbit Springs looking at overflow parking areas
  - o Using old ROW might be an option
- Parking on lawns an issue. Make recommendations on signage for limiting parking in plan
- We cannot say no to visitors. Some are Walden residents
- · Town map should show parking as well as trails
- Consider parking meter donation boxes

### Village Center

- Congregational space, but not a parking lot
- · Shops and restaurants
- · Ootelwah should be a model

### page 14 of 18

135 2<sup>nd</sup> avenue no. 3 | franklin, tennessee 37064 | tel 615.678.8640 | commongrounddesign.com



- More green space than Ootelwah
- Can't allow quality of life to diminish
- Current stormwater regs aren't enough
- Need more shops and restaurants
- · Current grocery store proposal is too big too much environmental burden
- Needs to be walkable
- Needs to accommodate pedestrians and cyclists



135 2<sup>nd</sup> avenue no. 3 | franklin, tennessee 37064 | tel 615.678.8640 | commongrounddesign.com



### Focus Group Meeting #7: Taft Corridor South

Ardian Totten

John Rutter

Kathy Stair

John Anderson

Janet Laskowski

Sangler couple

Mike Dupree

David Housemann

### 1997 Plan

- 3 significantly different areas in Walden–Summertown
  - Residential is below grade from Taft
  - o Hampton Rd area 100+ residents.
- Fairly typical process from the RPA looking at horizon year growth
- Assumed commercial hub where Pruetts
- Population would continue to push out
- Done in advance of the UGB Law
  - o Annexations anticipated in 1997 didn't happen
  - o Have seen extraordinary growth going into Sequatchie Co plan
  - o The next commercial node is at Timesville Rd
  - o Neighborhood retail centers
  - Taft didn't get the expansion that was anticipated at the time + W Rd wasn't fixed

### 5-10-20 years - how has Walden changed?

- More traffic now on the mountain
- Hard to get out of intersection at Anderson and Taft
- Needs be a roundabout at that intersection near Timesville
- TDOT took over parking lot when added turn lane
  - o Kept building roadway up, stormwater an issue
  - o Impacts ability for people to pull out.
  - o Consider something for safety twice. Our building has been hit twice
  - Created a hazard in the process.
- Walden is becoming younger
- Walden has gentrified
- · There is resistance to change
- Need sensitive retail development
- TDOT says reroute of truck traffic is not possible so must maintain through-put
- There are good regulations for environmental concerns
- McCoy has visibility, but Bachmann does not
- Need to be careful with "paper streets" as they are still privately owned until the Town takes possession

### Village Center

- Timesville/Taft does not warrant signal
- A decel lane on the south side is required

### page 16 of 18

135 2<sup>nd</sup> avenue no. 3 | franklin, tennessee 37064 | tel 615.678.8640 | commongrounddesign.com



- · Walden is tremendous for now
- Ace and Bread Basket faced opposition
- Retail anchor is needed to drive people there
- Need to keep people on the mountain
- · Southern portion of the corridor is the core
- Should the town center go off Taft or on both sides and change Taft to a Main St
  - o TDOT told us. Doing stabilization work on front of mtn because of rains
  - Reroute because of trucks a request, but t's a US highway-cannot do that unless alternative provided
  - o Taft will always be a Federal Highway
  - o This means the center is on one side or the other
- Retail development on Taft does not fundamentally change Summertown
  - o Increases demand for homes, increases volume up
- Environmental-the rules in TN are not strong is what those people are saying
  - o Hamilton Co doesn't have the education
  - Arguments without substance unless someone points to a major environmental failure
- Summertown residents are most vocal opposition to proposed development
- Bachmann doesn't have visibility—not fair to treat it as a civic anchor because you don't see it
- Bachmann is a destination
- McCoy is both
- Can't predict development to the north without knowing what happens with Timesville Rd-if that parcel doesn't develop then it:
  - o Sends a message your money isn't welcome
  - o Will impose so many conditions so that it's not economically viable.
- 44,000 sf 2<sup>nd</sup> smallest grocery in Chatt.
- · Final lawsuit hearing tomorrow.
  - Town went through the process. Applied for rezoning. Front 3 acres are already zoned commercial. I could already put in a gas station (not the highest, best use)
  - o No landscape ordinance.
  - Village Center elements in the zoning were dated. It allowed 400x400 block development.
  - Since, that was designated. 1 property has been asked to be rezoned since then
  - o 4-hour meeting held in Bachmann. 200-350 people there.
  - We argue this is not a strip center double fronted retail and trees would never go in a strip development
  - Ordinance includes 23 conditions, including to approve the site plan, color palette (architectural), 2 traffic studies by consultant hired by the Town
  - o Standard for review by a court. Is it fairly debatable, was there a rational decision?
  - Not about the intrinsic correctness.
  - o Court: was the ordinance reasonably based and fairly debateable?

### page 17 of 18

135  $2^{nd}$  avenue no. 3 | franklin, tennessee 37064 | tel 615.678.8640 | commongrounddesign.com



o If there is an appeal to stay a judgement they must post a bond to stop the development. The bond is 125% of the development's value.

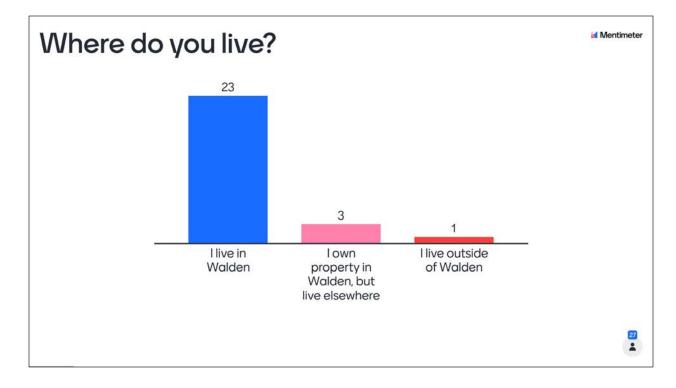
### Connectivity/Mobility

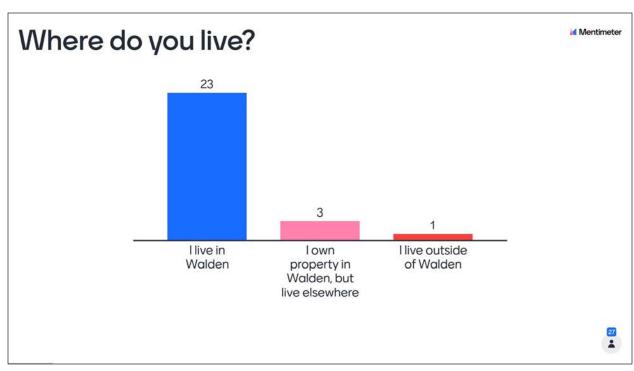
- There is a ton of open private ROWS that have been accepted by the Town of Walden
  - Subdivision plat–Future Development. A presumed dedication. Town can accept 1. Express legislation action or 2. Use the ROW or Open it to allow traffic
  - o Annexation doesn't mean it accepts open and non-open ROW.
  - Can't really go through the ROW in subdivisions—only those living in there
    have the right to use. Should Town accept them all (responsibility and
    legality)
  - There should be no pedestrian traffic on Hampton. People walk on it. Not a safe road for peds.

End of Memo.

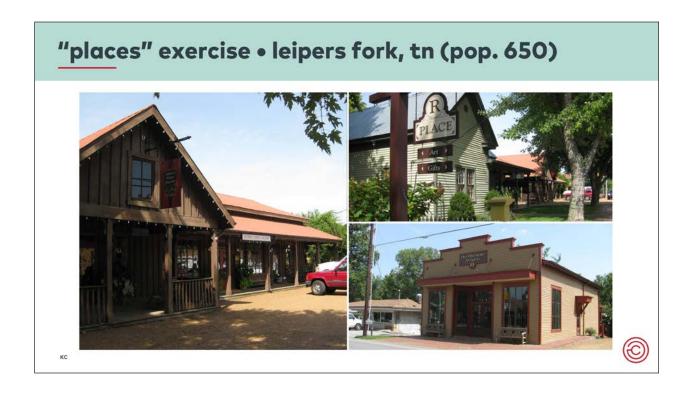
page 18 of 18

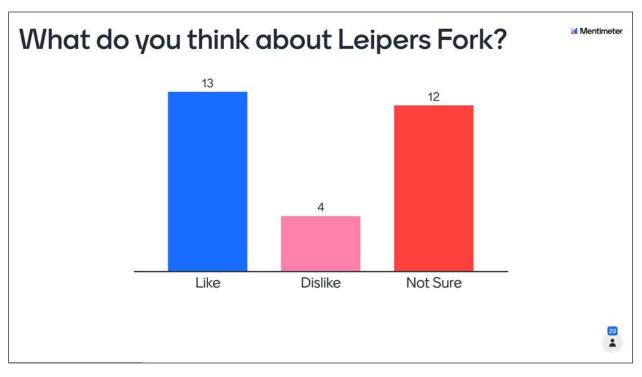
135 2<sup>nd</sup> avenue no. 3 | franklin, tennessee 37064 | tel 615.678.8640 | commongrounddesign.com



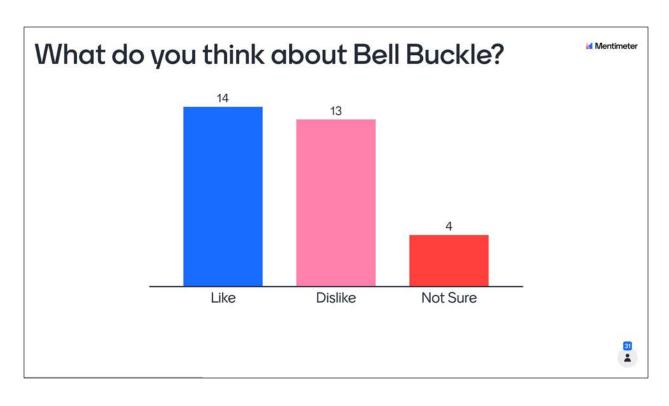


### HANDS-ON WORKSHOP: PLACES EXERCISE



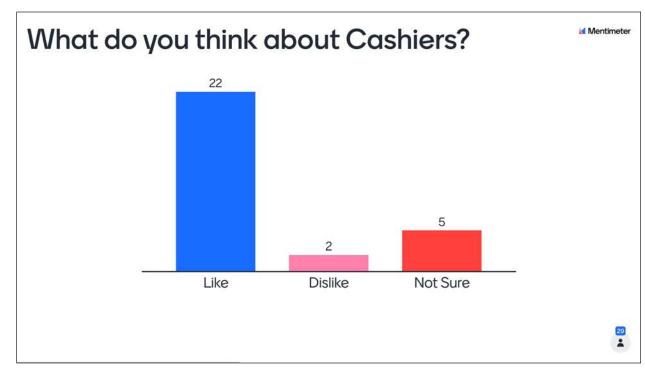


# "places" exercise • bell buckle, tn (pop. 544) WERNS Antiques & Gifts HISTORIC BELLO BUCKLE To Description of the Company of

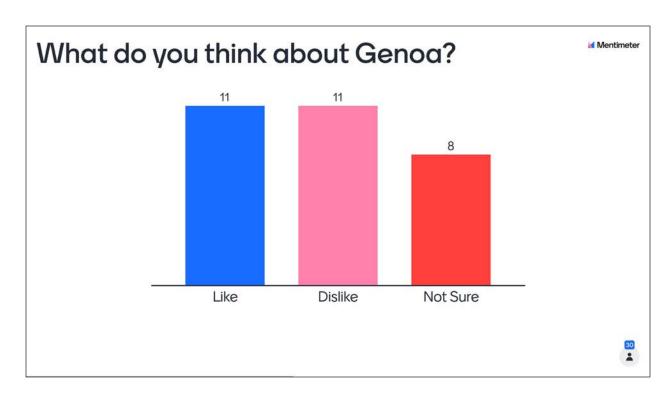


### HANDS-ON WORKSHOP: PLACES EXERCISE

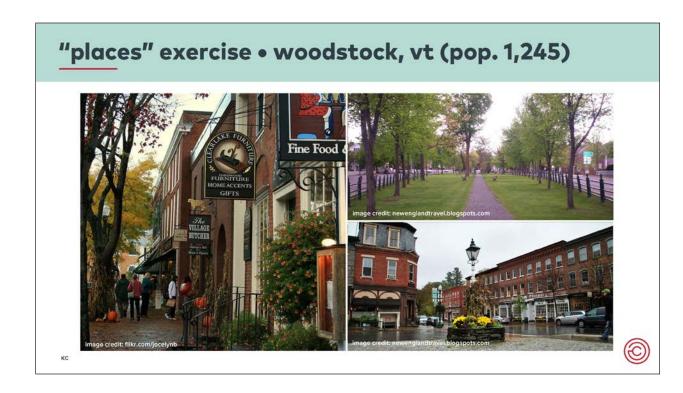


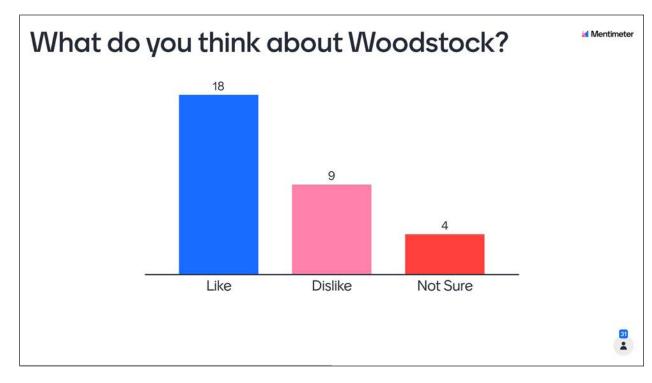


# 

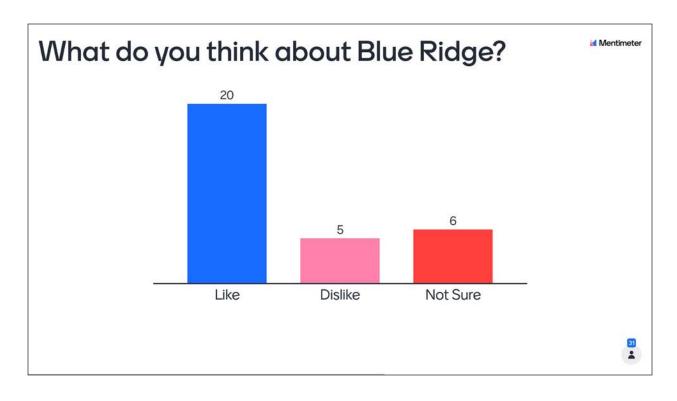


### HANDS-ON WORKSHOP: PLACES EXERCISE

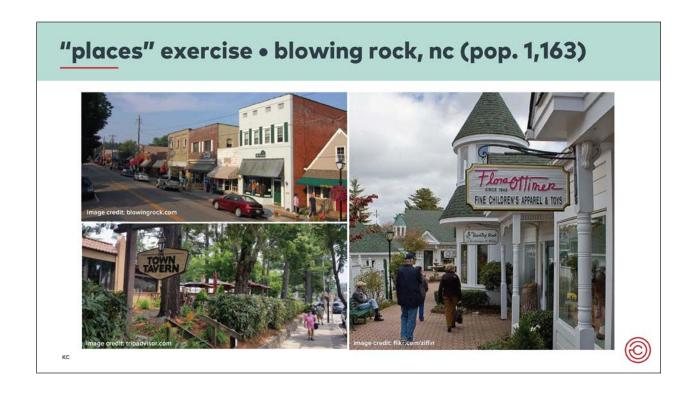


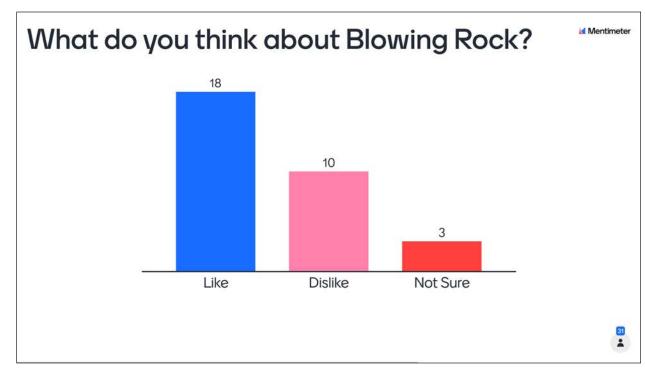


# 

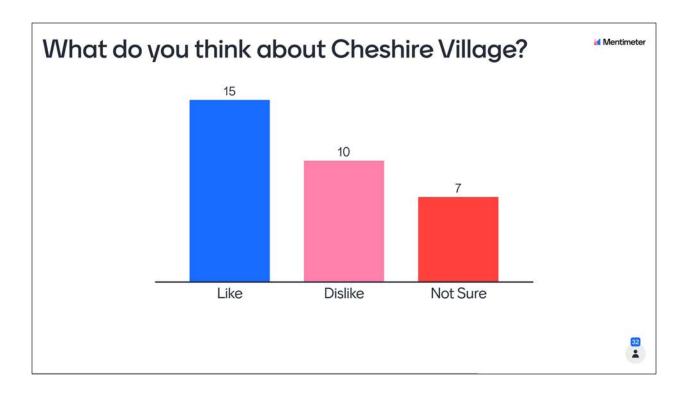


### HANDS-ON WORKSHOP: PLACES EXERCISE

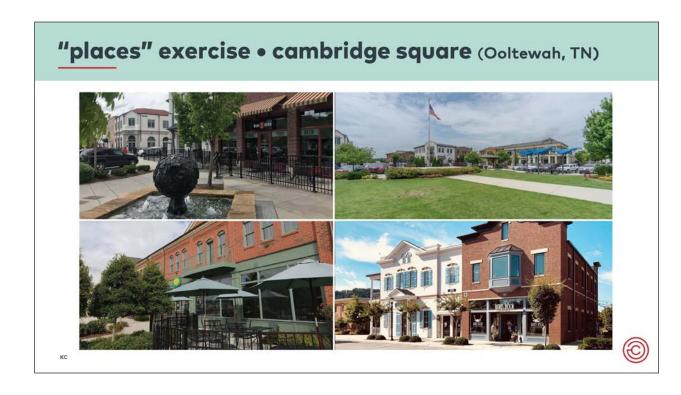


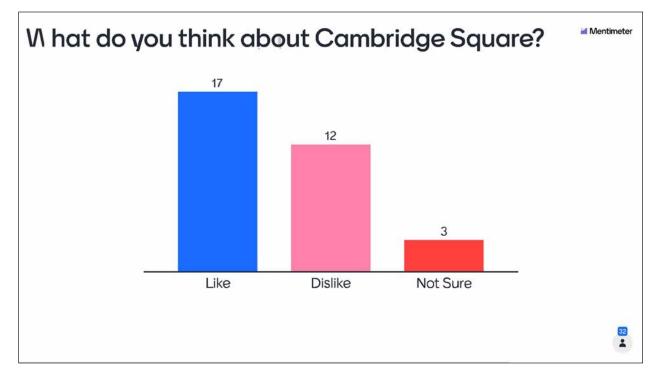


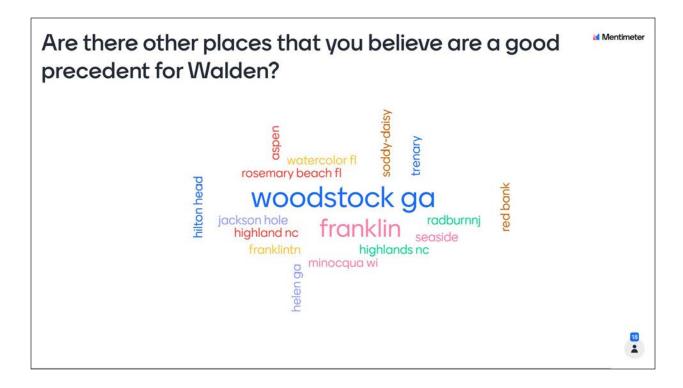
# 



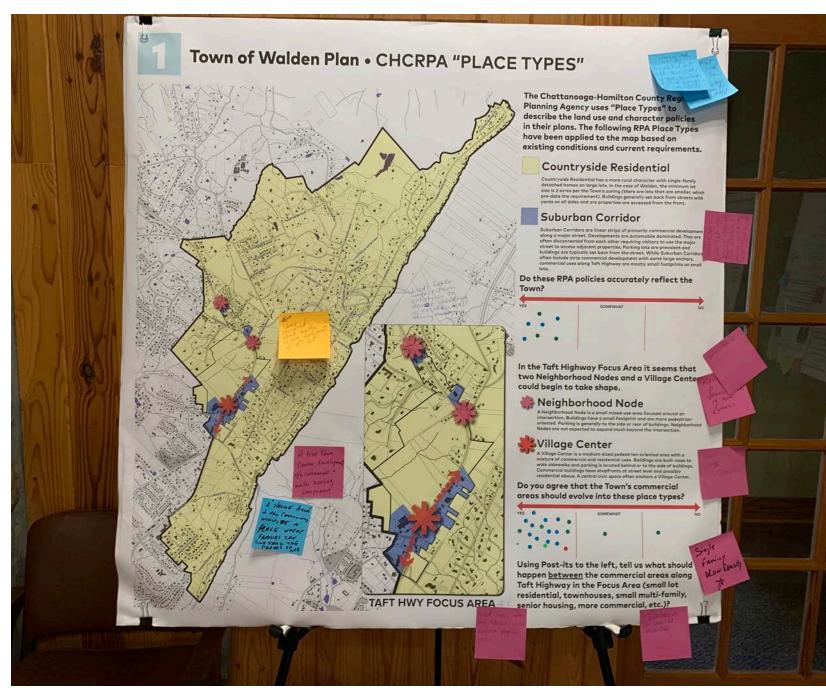
### HANDS-ON WORKSHOP: PLACES EXERCISE



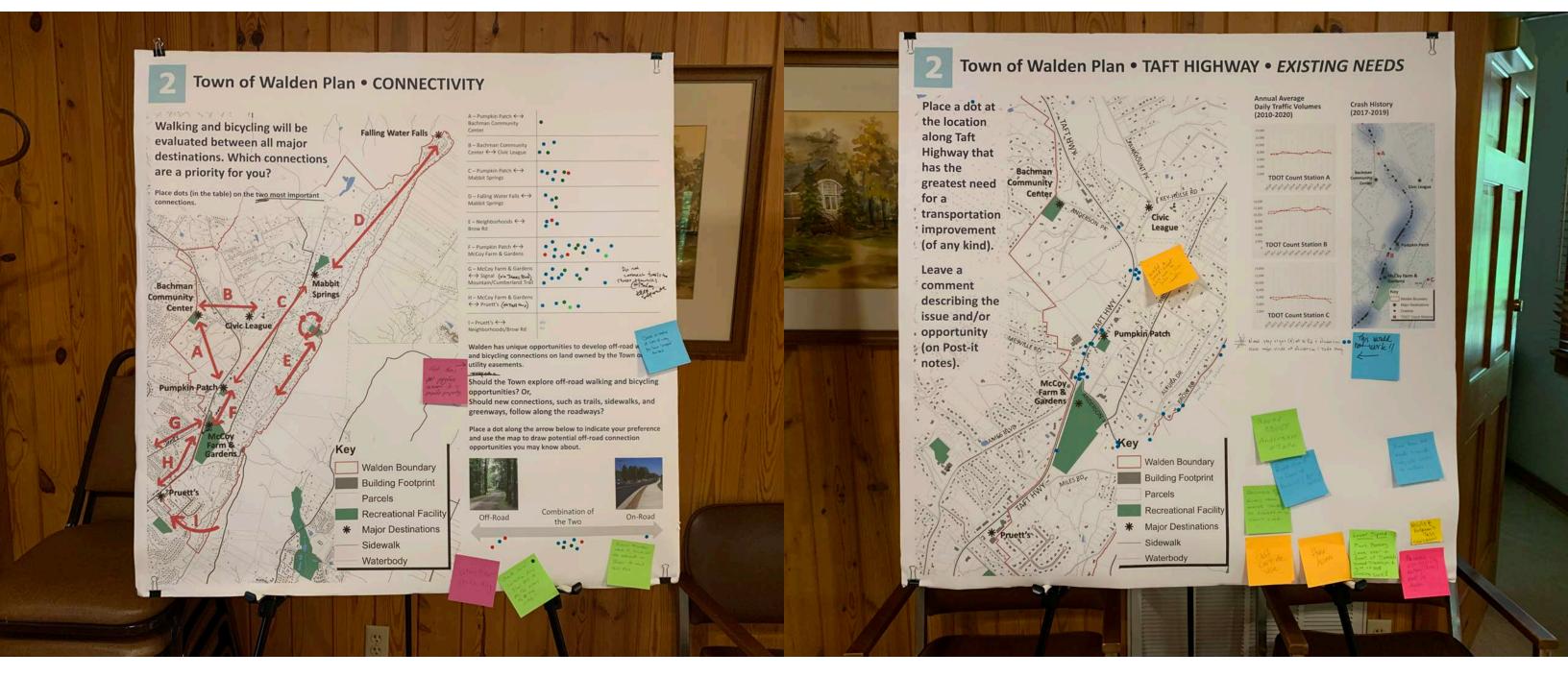




### HANDS-ON WORKSHOP STATION 1: "PLACE TYPES"

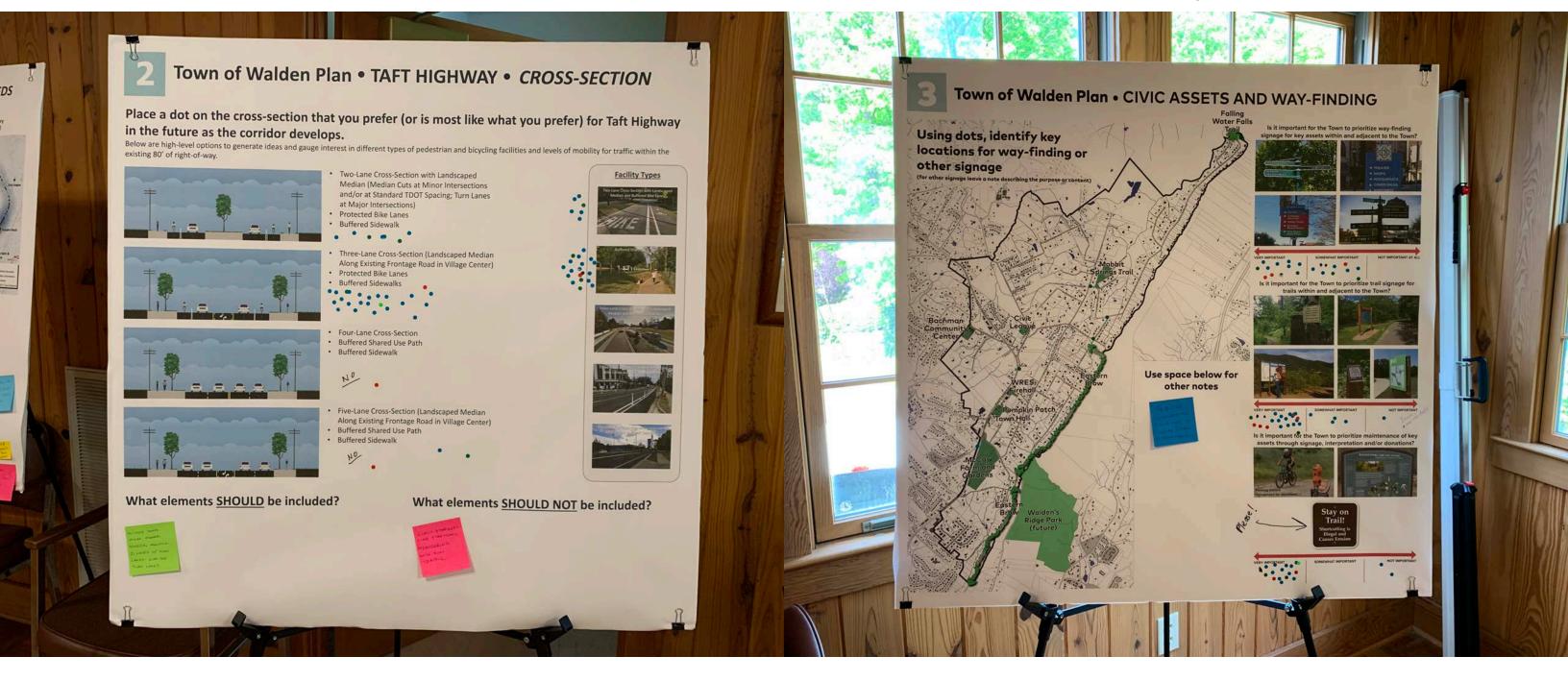


### HANDS-ON WORKSHOP STATION 2: TAFT HIGHWAY NEEDS



### HANDS-ON WORKSHOP STATION 2: TAFT HIGHWAY CROSS SECTION

### HANDS-ON WORKSHOP STATION 3: ASSETS AND WAY-FINDING



HANDS-ON WORKSHOP STATION 5: TOWN CENTER LOCATION AND SIZE



### HANDS-ON WORKSHOP STATION 6: OTHER ISSUES





November 30, 2021

To: Steven Bush, Angela Cassidy, Andrew Hausler, Sarah McKenzie, Dawson Wheeler Re: Public Comment Summary

The following is a summary of the public comments received on the draft plan. This summary will be included in the appendix of the plan.

- A noise ordinance should be adopted, specifically related to vehicles.
- · Continue support for the Save the Hemlocks campaign.
- The concept drawings for the Town Center may be too aspirational.
- Concerned that there is not enough usable land to accommodate what is shown in the Town Center concepts.
- It should be acknowledged that not all of these ideas may be accommodated.
- The median and trees along Taft Highway are ideal, but can it be widened to accommodate them?
- While the plan recommends a market study for retail uses, such uses may be many years away.
- The plan includes concepts that can benefit Walden now and into the future.
- It should be clear that the Walden Zoning Ordinance regulates development.
- Developing within the natural constraints of a site is important.
- It should be revised that the plan "may be used" instead of "must be used" to quide decisions.
- Clarify that Martha McCoy did not donate the entire farm, but rather transferred the property by gift and by sale.
- Is the AARP index relevant to Walden? It should not be used to argue the need for one thing or another.
- The acknowledgement of the Walden's terrain being its greatest liability is appropriate.
- Under the current zoning, the map and text should be updated to acknowledge the outcome of the litigation related to the Lines Orchid property
- · Clarify the term "placemaking."
- · Consider changing "guide decisions" to "inform decisions."
- The "Technical Feasibility" statement is nice.
- · Clarify the term "precedent imagery."
- · Several houses grouped around a courtyard seems to be too dense for Walden.
- Development of severely steep slopes should be limited to trails and paths, not roads
- Question whether three stories is appropriate for Walden.
- Encouraging visitors to cultural and recreational assets now, before the Town Center is developed, will not significantly increase revenue.
- Stormwater and Wastewater management are an issue. The plan does not emphasize wastewater challenges enough.

page 1 of 3

135 2<sup>nd</sup> avenue no. 3 | franklin, tennessee 37064 | tel 615.678.8640 | commongrounddesign.com



- Decentralized wastewater treatment technology is evolving and may eventually be suitable for Walden, but this plan seems to endorse this technology as applicable to Walden.
- Is the Serenbe example comparable to Walden's topographic and shallow soil conditions?
- The plan should acknowledge wastewater challenges without endorsing decentralized systems.
- The development of the plan has been excellent.
- Deliberate planning brings credibility to the final plan.
- Standing committees should be used to implement the plan-like the Land Use Committee.
- The Walden Zoning Ordinance states that Walden should be "a community that attracts families, who can live her through the phases of life." Walden being a multi-generational community is not being fulfilled.
- There should be some flexibility for developers related to topography, such as, small footprint development on steeper slopes.
- Wastewater treatment is a roadblock to development and addressing it should be a priority through engaging engineers, encouraging innovation, and incentivizing developers.
- Developers should be encouraged to be creative in achieving the intent of the plan even if the solution differs from the plan scenario.
- The Town should adopt the plan and set aside funding to update the Town's development regulations.
- Excited about the idea of a roundabout at Taft and Anderson and would like to see one considered for the W/Anderson/E. Brow intersection.
- Road across Taft Highway near the medical center is needed.
- Something must be done about parking and traffic calming before signage to Falling Water Falls are installed.
- It would be good to see development that brings restaurants and services to Walden
- There is concern about Walden's Ridge Park having an entrance of the W road.
- It is important to consider the geology and environmental factors at play in the Town Center area.
- The Luther 1962 mineral survey (included at the end of this summary) describes the following related to mining in the area:
  - Many old mines are concentrated around Middle Creek southwest of Fairmount.
  - A large amount of coal (upwards of 20 million tons) remains near Middle Creek and this is a combustible hazard to the area.
  - o Reclamation of the mines has been underway since 1990
  - Local environmental group Waterways has documented more than a hundred instances of subsidence due to coal mining.
- Onsite sewage treatment is significantly limited by the geology and soil types in the Town Center area.

page 2 of 3

135 2<sup>nd</sup> avenue no. 3 | franklin, tennessee 37064 | tel 615.678.8640 | commongrounddesign.com



- The limitations of shallow soils and the presence of shale and coal will further limit stormwater ponds, building foundations, and roads
- The frequency of stormwater events exceeding the drainage capacity of the Town Center area have increased greatly.
- The Town should retain the services of a geologist to study the environmental issues in the Town Center area.
- The Town should study the impact of development in the Town Center area.
- The Town should adopt new standards related to development on steep slopes and stormwater management.
- Old Town Coppell near Dallas could be a precedent for Walden's Town Center.
- Interactive fountains or a splash pad should be integrated into new parks for the Town.
- Given concerns by some to the impacts of a multi-purpose path along Taft, the Town should consider a multi-purpose path along Laurel as an alternative.
- Consider a stair connection from E. Brow Road to the proposed Walden's Ridge Park
- Encourage local Boy Scout troops to take on trail maintenance and/or signage as a service project.
- Speed cushions could have an unintended consequence of being difficult for cyclists and strollers.
- Reducing speed limit to 25 is a good idea.
- Pedestrian reminder signage and electronic speed signage would be helpful.
- Parking on E. Brow Road should be prohibited.
- The safety campaign should include signage indicating dangerous walking conditions (fog, etc.)
- Not in favor of Signal Mountain developed like Ooltewah.
- Town needs to invest money in existing buildings, instead approving new buildings.
- The Town should invest in fixing up the aesthetics of existing businesses.
- Line's Orchid could become a park area similar to Kenner's and Prater's Mill.
- Keeping Signal Mountain green and preserving trees are important.
- A roundabout at the W/Anderson Pike/E. Brow is a bad idea.

End of Memo.

page 3 of 3

135 2<sup>nd</sup> avenue no. 3 | franklin, tennessee 37064 | tel 615.678.8640 | commongrounddesign.com

STATE OF TENNESSEE
DEPARTMENT OF CONSERVATION
DIVISION OF GEOLOGY

MINERAL RESOURCES SUMMARY
OF THE
FAIRMOUNT QUADRANGLE,
TENNESSEE

By
EDWARD T. LUTHER
and
GEORGE D. SWINGLE



NASHVILLE, TENNESSEE

### CONTENTS

	Page
troduction	. 1
oal	2
Geology of the coal seams	. 2
Mining	5
Reserves	6
nd	9
ndstone (dimension)	10
nert	10
on (hematite)	11
mestone and dolomite	12
ale and clay	12

MINERAL RESOURCES SUMMARY

OF THE

FAIRMOUNT QUADRANGLE,

TENNESSEE

- 3

EDWARD T. LUTHER 1 and GEORGE D. SWINGLE 2

### INTRODUCTION

This mineral resources summary accompanies the geologic map of the Fairmount quadrangle, which is bounded by 35°07'30" and 35°15' N. Latitude and by 85°15' and 85°22'30" W. Longitude, an area in western Hamilton and southeastern Sequatchie Counties.

The known mined mineral resources of this quadrangle are coal, sand, and dimension sandstone. Potential resources are chert, iron, limestone and dolomite, shale, and clay.

Mines, quarries, pits, prospects, and drill holes have been located with reference to the Tennessee Coordinate System. The base point for this system (at the intersection of 86°00′ W. Longitude and 34°40′ N. Latitude near Scottsboro, Alabama) is assigned the values 2,000,000 feet east and 100,000 feet north. The coordinate

1

Assistant State Geologist, Tennessee Division of Geology, Nashville Associate Professor of Geology, University of Tennessee, Knoxville

ation (in feet) of any point in Tennessee may be expressed with ference to its distance east-west and north of this base point. This stem is shown in gray on the quadrangle map as a grid of 10,000-t rectangles. All locations on this map may be measured from the ference coordinates shown along the margins of the quadrangle.

### COAL

The first coal mining in Hamilton County was in 1842, at Sale eek, about 12 miles northeast of the border of the Fairmount adrangle. It is not known definitely when mining began in the irmount quadrangle, but it probably was not until after the zil War.

Coal mining once was very important in the Fairmount quadagle, as evidenced by more than 40 abandoned mines or prospects, t at present the industry has dwindled to 4 small active mines ube 1). Most of the mines are concentrated around the head-ters of Middle Creek southwest of Fairmount, and around the in northwestward-trending ridge just east of Hicks Branch, but 2½ miles north-northeast of Fairmount.

Most of these mines are small, employ only a few men, and rk only a few acres of coal. The largest single operation, no ger active, has a mined-out area of about 100 acres, and the al mined-out area in the quadrangle is approximately 420 acres. re than 2 million tons of coal are estimated to have been mined lost in mining in the quadrangle.

### Geology of the Coal Seams

The coal-bearing rocks of the Fairmount quadrangle are of Pennvanian age and are restricted to Walden Ridge, a northeastward-nding syncline that occupies the western three-fourths of the drangle. Most of the mining areas are located near the axis of syncline, where the beds are nearly flat or dip gently to the theast, but two abandoned mines are located near the eastern re of the syncline at Pickett Gulf and Roberts Gap, where the to the northwest is approximated.

2

TABLE 1. LOCATIONS OF COAL MINES IN THE FAIRMOUNT QUADRANGLE, TENNESSEE (Cont'd.)

### SEWANEE SEAM

Map Number	Tennessee Coordinates	Mine Names
	279,000N., 2,201,800E.	Vandergriff #1 Mine (inactive)
	278,600N., 2,202,000E.	Grover Louis #2 Mine (inactive)
	278,600N., 2,201,800E.	Inactive mine, name unknown
	278,100N., 2,200,400E.	Richard Louis #8 Mine (inactive)
	276,600N., 2,200,800E.	Inactive mine, name unknown
	276,400N., 2,200,700E.	Murray Mine (inactive)
-	276,300N., 2,220,300E.	Dave Frizzell Mine (inactive)
no de technica	276,900N., 2,199,000E.	Bollinger Mine (inactive)
-	275,000N., 2,197,600E.	Little Mine (inactive)
	273,800N., 2,197,900E.	Johnson Mine (inactive)
	272,900N., 2,197,300E.	Mathis Mine (inactive)
minute.	272,800N., 2,196,900E.	Higdon Mine (inactive)
0.000	271,400N., 2,194,500E.	Inactive mine, name unknown
	294,700N., 2,210,100E.	Inactive mine, name unknown
	293,900N., 2,210,400E.	Inactive strip mine, name unknown
	301,500N., 2,218,700E.	Luan Mine (inactive)
	301 900N 2 219 400E	Inactive mine, name unknown

### LANTANA SEAM

   299,300N., 2,207,000E.	Inactive mine, name unknown
299,700N., 2,206,600E.	Hicks Mine (inactive)
 301,400N., 2,207,200E.	Serodino Strip Mine (inactive)
300,700N., 2,207,800E.	Inactive mine, name unknown
 300,500N., 2,207,700E.	Inactive mine, name unknown
 300,100N., 2,208,400E.	Blockton Coal Co. Mine (inactive
 300,200N., 2,208,800E.	Inactive mine, name unknown
 300,600N., 2,208,500E.	Inactive mine, name unknown
300,900N., 2,208,500E.	Inactive mine, name unknown
202 400 0 202 200 2	Canadina Strin Mina (inactive)

The three important seams in the Fairmount quadrangle are ie Richland, Sewanee, and Lantana coals, which are in the Crab rehard Mountains Group of the lower Pottsville Series. Of these is Sewanee coal is by far the most important, both from the stand-pint of past and present mining and of known reserves.

TABLE 1. LOCATIONS OF COAL MINES IN THE FAIRMOUNT QUADRANGLE, TENNESSEE

### RICHLAND SEAM

Map Number	Tennessee Coordinates	Mine Names		
	275,700N., 2,190,500E.	Inactive mine, name unknown		
	280,000N., 2,192,600E.	Hawkins Mine (inactive)		
	281,100N., 2,192,500E.	Inactive mine, name unknown		
	280,600N., 2,197,200E.	Inactive strip mine, name unknow		
	280,700N., 2,197,800E.	Inactive mine, name unknown		
	281,100N., 2,198,000E.	Inactive mine, name unknown		
	279,800N., 2,198,000E.	Inactive mine, name unknown		
	279,400N., 2,199,500E.	Inactive mine, name unknown		
	277,400N., 2,198,700E.	Lloyd Little Strip Mine (inactive)		
	304,300N., 2,205,500E.	Wilson Mine (inactive)		

### SEWANEE SEAM

mirror.	292,300N., 2,187,100E.	Inactive mine, name unknown
-	292,000N., 2,187,100E.	Inactive mine, name unknown
	292,000N., 2,187,400E.	Inactive mine, name unknown
man and an	283,400N., 2,187,200E.	Inactive mine, name unknown
	284,700N., 2,194,500E.	Inactive strip mine, name unknown
-	284,800N., 2,194,800E.	Inactive mine, name unknown
1	282,600N., 2,191,600E.	Active mine (1962), name unknown
	274,200N., 2,187,000E.	Inactive mine, name unknown
2	282,600N., 2,194,000E.	Doc Spangle Mine (active, 1962)
	282,800N., 2,194,300E.	Roberts Mine (inactive)
	279,900N., 2,196,600E.	Inactive strip mine, name unknown
3	280,600N., 2,196,900E.	Tate Mine (active, 1962)
man.	280,800N., 2,197,000E.	Whitlow Mine (inactive)
	280,800N., 2,197,300E.	Grayson Mine (inactive)
4	281,900N., 2,198,600E.	Dill Mine (active, 1962)
	281,700N., 2,198,700E.	Kilgore # 1 Mine (inactive)
	281,100N., 2,198,500E.	Inactive mine, name unknown
	280,400N., 2,198,400E.	Inactive mine, name unknown
	280,000N., 2,198,300E.	Corbin Strip Mine (inactive)
-	279,900N., 2,198,700E.	Spangler Mine (inactive)
de sel se	279,400N., 2,199,100E.	Inactive mine, name unknown
	279,500N., 2,199,500E.	Vandergriff #2 Mine (inactive)
	279,700N., 2,200,200E.	Kilgore #2 Mine (inactive)
	279,600N., 2,200,900E.	Inactive mine, name unknown
	279,700N., 2,201,500E.	Scott Mine (inactive)

3

In this quadrangle wherever the horizons of the Richland and Sewanee coals have been tested some coal has been found, though not necessarily of minable thickness. These coals may be considered as blanket deposits. The Lantana coal, on the other hand, is pockety in occurrence and is known to be absent over considerable areas. The thickest body of Lantana coal is quite restricted in area and abruptly thins laterally.

Richland coal.—This seam (also called the No. 9) is near the base of the Whitwell Shale, only a few feet above the underlying Sewanee Conglomerate and separated from it by a thin underelay and a few feet of sandy to silty shale. Above the coal is shale of variable thickness succeeded, in some areas, by thin sandstone. The Richland coal is known to range in thickness from 17 to 39 inches in this quadrangle.

Sewanee coal.—The Sewanee coal (or No. 10 seam) is found in the middle to upper part of the Whitwell Shale. This coal is underlain by underclay and shale and overlain by shale as much as 40 feet thick, which in turn is overlain by the Newton Sandstone. The Sewanee coal ranges in thickness from 0 to 60 inches in the Fairmount quadrangle.

Lantana coal.—In most places, the Lantana is about 40 feet between the base of the lower shale member of the Vandever Formation. It is underlain by underclay and shale and is overlain by shale and fine-grained sandstone 20 to 80 feet thick, which in turn are overlain by the Needleseye Conglomerate Member of the Vandever Formation. In some areas a thin (unnamed) coal is present about 20 feet beneath the Lantana. The Lantana coal ranges in thickness from 0 to 30 inches in the Fairmount quadrangle.

### Mining

All the active operations are small underground mines. These employ only a few men each, who work mostly by hand labor and use mules to haul the coal to the surface. None of the coal is beneficiated by emphing or weaking.

Because of the general thickness and character of the overburden and the moderately steep slopes above the coal seams, strip mining is feasible only along the contour or outcrop in relatively narrow belts.

5

Coals found in the Fairmount quadrangle are high-volatile situminous coals, with fixed carbon less than 69 percent and heating value from 12,000 to 14,000 BTU per pound. These are considered to be coking coals, though not all can be made into metallurgical-grade coke. The coals of the Fairmount quadrangle are uitted to a variety of industrial and domestic uses and can be considered to be good coals. Proximate and ultimate analyses of he Richland, Sewanee, and Lantana coals for Hamilton County, which should be fairly typical of the coal in these seams in the Fairmount quadrangle, are shown in table 2.

None of the coal mined at present in the Fairmount quadrangle scleaned or otherwise mechanically prepared, because the uses o which it is put do not require this. Washability tests made by the U.S. Bureau of Mines on Sewanee coal from a mine in this quadrangle indicate that the coal cannot be upgraded economically by washing to meet the specifications for making metallurgical coke.

### Reserve

Table 3 shows a total of 14,024,000 tons of estimated reserves if recoverable coal in this quadrangle; tonnage figures are given y seam and are subdivided into measured, indicated, and inferred eserves. As used in estimating reserves in this quadrangle, meaured reserves are those within ½ mile of a mine opening, facing, trill hole, or other information point, indicated reserves are within ½ mile of such points, and inferred reserves are within 1 mile, where geological information indicates that the coal beds are continuous and either uniform in thickness or predictably variable.

Recoverable reserves are considered to be only coal in beds more han 28 inches thick (because beds thinner than this at the present ime cannot be mined underground economically), and are calculated is 50 percent of the total coal actually in the ground.

Sufficient reserves of coal of minable thickness and good enough uality for steam or domestic use are known in the Fairmount quadrangle to support a coal producing industry many times larger than he present one for many years. Reserves are in three seams and re located over a wide area, so that many sites are available for the ocation of small to medium sized mines.

2,560 2,450 2,497 3,010 1,980 2,450 12,610 5.6 7.1 177 1.5 73.3 75.1 ANALYSES OF minimum, and a 4.9 5.3 4.6 12 1.78 1.7 7.8 7.8 12.95 14.9 4.0 14.7 53.7 60.9 51.6 55.3 64.5 53.4 59.3 28.9 31.0 28.6 29.68 39.3 25.7 28.7 Volatile 2.7 1.6 2.8 RICHLAND LAUTANA SEWANEE

Prospecting should be restricted to areas underlain by beds of Pennsylvanian shale. On the accompanying geologic map those areas labeled Pra (Raccoon Mountain Formation), Psp (Signal Point Shale), Pw (Whitwell Shale), and Pv! (lower shale member of the Vandever Formation) are underlain mostly by shale, and the lines labeled r, s, and l show the approximate outcrops of the Richland, Sewanee, and Lantana coals, respectively.

### Selected References

HERSHEY, R. E., WILLIAMS, LLOYD, CRENTZ, W. L., AND MILLER, J. W. (1956) Estimate of Known Recoverable Reserves and the Preparation Characteristics of Coking Coal in Hamilton County, Tenn: U. S. Bur. Mines Rept. Inv. 5262.

LUTHER, E. T. (1959) The Coal Reserves of Tennessee: Tenn. Div. Geology Bull. 63.

### SAN

Sand is produced on this quadrangle 1½ miles northeast of Fairmount in the north-central part of the quadrangle (Map Number—5). The Tennessee Coordinate location is 295,300N, 2,206,250E. The deposit, which has been worked since the spring of 1955, is on the property of Webster T. Bollinger and is operated by the Sawyer Sand Company. The sand occurs in the Needleseye Conglomerate Member of the Vandever Formation. At this place sandstone beds are somewhat friable because of weathering and require a minimum of crushing to liberate the individual sand grains. The sand in places is conglomeratic, containing pebble-size quartz fragments. About 1 ton of gravel is produced per 15 to 20 tons of sand. The sand is variable in grain size, ranging from fine to coarse, depending upon which bed is being quarried. Most of the sand is marketed as meanure and

Vast reserves of sand are present in the Pennsylvanian sandstone formations on Walden Ridge, but in most places the sandstone layers are well indurated and require crushing.

### Selected Reference

HERSHEY, R. E. (1960) The High-Silica Resources of Tennessee: Tenn. Div. Geology Rept. Inv. 10.

9

### SANDSTONE (Dimension)

idstone is not being quarried in the Fairmount quadrangle at esent time, but quarries are operating on the Ketner Gap ngle to the west.

ere are two abandoned quarries on the Fairmount quadrangle he western border of the map. One is in Hamilton County Number—6), on the southern slope of Freeman Ridge (Ten-Coordinates 284,300N., 2,190,800E.), and is developed in the a Sandstone. Another quarry (Map Number—7) is on the slope of Grayson Ridge, 1½ miles to the north (Tennessee nates 292,000N., 2,190,700E.) This quarry is in the Needlesaglomerate Member of the Vandever Formation. The rock in uarries appears generally similar to that produced from the ille Sandstone in the vicinity of Crossville and Crab Orchard berland County.

### Selected Reference

i. W. (1958) The Sandstone Industry of the Crossville-Crab Orchard ict, Tennessee: Tenn. Acad. Sci. Jour., v. 33, no. 1.

rt is not being mined in the Fairmount quadrangle at present, a bandoned chert pits are present. The pit designated Map r—8 is located along Grubb Road, 1,500 feet east of U. S. ay 27, near the eastern border of the quadrangle (Tennessee tates 283,250N., 2,223,300E.); the other pit (Map Number located on the northern outskirts of Red Bank, 2,000 feet U. S. Highway 27 (Tennessee Coordinates 273,450 N., 2,218,

ge reserves of chert are present in the southeastern portion quadrangle, in rocks of the Knox Group. Prolonged weather-his area has resulted in the accumulation of a thick residuum ng the Knox. Consequently, almost any hill in the Knox outli is a potential pit site. The estimated thickness of the Knox m averages 50 feet or more, and thicknesses of more than t are not uncommon. The chert is mixed with yellowish to that is relatively impermeable. Chert in this area is widely road fill and as surfacing material.

Another source of chert in this area is the weathered portion of the Fort Payne Chert, which crops out in two belts paralleling the Cumberland Escarpment in the southeastern part of the quadrangle. The chert in the Fort Payne generally is similar to that in the Knox.

### IRON (Hematite)

Thin layers and lenticular beds of hematite occur in the upper part of the Rockwood Formation, which is present in the south-eastern portion of the quadrangle. The ferruginous beds in the Rockwood were prospected extensively and mined locally about 1900 along the base of the Cumberland Escarpment in East Tennessee.

In the area of the Fairmount quadrangle two prospects have been described by Burchard (1913, p. 88). The exact locations of the sites described by Burchard are unknown, but Burchard's Locality No. 11 is believed to be at or near the prospect symbol indicated on the Fairmount quadrangle between Browntown and Mountain Creek roads (Map Number—10, Tennessee Coordinates 278,850N., 2,212,-600E). The propriet is an interest of the property of the pr 600E.). The prospect shown 1 mile to the northeast near Browntown road (Map Number—11; Tennessee Coordinates 281,700N., 2,216,900E.) is believed to correspond to Burchard's Locality No. 12. The following description of these two localities is from Bur-

Section of "Rockwood" ore 34 miles northwest of Hixson (Pl. II, 11, and corresponding ore section)

(* 11 12) 12, min corre	spone	nuk ore	section.)	
Shale, sandy				Inche
Ore, hard, limy				
Limestone, argillaceous	and	slightly	ferruginous	2-
Limestone ferruginous Shale		+1.5+0.00		4-

On the east limb of the anticline about seven-tenths mile northeast of the point where section No. 11 was measured, considerable float ore was noted in a small stream bed. Some slabs of ore measuring seven inches in thickness were found and one ledge was found in place which measured five inches in thickness. There may be two thin ledges of ore in the shale in this locality, which is indicated by the point numbered 12 on the map, Pl. II.

### Selected Reference

BURCHARD, E. F. (1913) The Red Iron Ores of East Tennessee: Tenn. Geol. Survey Bull. 16.

### LIMESTONE AND DOLOMITE

ere are no active quarries on this quadrangle at present, but eserves of limestone suitable for ordinary crushed stone uses sent in the southeastern portion of the quadrangle.

Newman Limestone, which outcrops along the base of the rland Escarpment and in a belt east of and parallel with U. S. ay 27, consists of massive, relatively pure, crystalline gray one. The Newman has not been tested in this area but is to contain as much as 95 percent calcium carbonate (CaCO<sub>3</sub>) is southwest of the Fairmount quadrangle.

pure shaly limestone is present in the Chickamauga formathe southeast part of the quadrangle. This rock generally is for ordinary crushed stone uses.

lomite is present in the Copper Ridge and younger formations Knox Group, but quarrying operations in this area would dered by the thick overburden of residuum.

### Selected Reference

N, R. E., AND MAHER, S. W. (1963) Limestone and Dolomite Resources Tennessee: Tenn. Div. Geology Bull. 65.

### SHALE AND CLAY

veral types of shale occur in the Fairmount quadrangle but s being mined at present.

- e Pennington Formation, which crops out along the Cumber-lscarpment, is quarried near Graysville and Daisy, Tennessee, e in tile industries.
- e Chattanooga Shale, exposed in places in the southeastern of the quadrangle, is a low-grade oil shale and is known to consmall amount of uranium (generally less than .01% U).

veral of the Pennsylvanian shale formations are believed de for use as bloating shale, although they have not been in this area.

reclays are locally present in thin beds beneath a few of the ylvanian coal beds.

Selected References

CONLEY, J. E., WILSON, HEWITT, KLINEFELTER, T. A., AND OTHERS (1948)

Production of Light-weight Converted Aggregates from Clays, Shales,

Slates, and Other Materials: U. S. Bur. Mines Rept. Inv. 4401.

STOCKDALE, P. B., AND KLEPSER, H. J. (1959) The Chattanooga Shale of Tennessee as a Source of Uranium: U. S. Atomic Energy Comm. Tech. Info. Service ORC-205.

13